

# User Experience Design

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October 2021



uflow



# Today

You can expect to learn about user experience and its

Definition, context & goals

Method & workflow

Mindset & principles

# Agenda

- A. What is user experience?
- B. UX in the product lifecycle
  - 1. Concept
    - 1.1 UX strategy
    - 1.2 User research
    - 1.3 Personas
    - 1.4 Journey mapping
  - 2. Design
    - 2.1 Information architecture & navigation
    - 2.2 General principles
    - 2.3 UI tips & tricks
    - 2.4 Interaction design
    - 2.5 Usability testing
  - 3. Implementation
  - 4. Launch
- C. Ux teams & roles

Ask **questions** or give **remarks** throughout the training.

Don't hold back! 😊

A.

What is user experience?

*"User experience encompasses  
all aspects of the end-user's interaction  
with the company, its services, and its  
products."*

- Nielsen Norman Group

# user experience (UX)

The totality of the technology, content, interaction, and aesthetics that people experience **from all touchpoints**

The act of doing **research and design activities**, and generally working to make a good design



I invented the term because I thought human interface and usability were too narrow. I wanted to cover **all aspects of the person's experience** with the system including industrial design, graphics, the interface, the physical interaction, and the manual.

*Don Norman, Ph.D*

User experience: **User's perceptions and responses** that result from the use and/or anticipated **use of a system, product or service**.

Users' perceptions and responses include the users' emotions, beliefs, preferences, perceptions, comfort, behaviours, and accomplishments that occur **before, during and after use**.

User experience is a consequence of brand image, presentation, functionality, system performance, interactive behaviour, and assistive capabilities of a system, product or service. It also results from the user's internal and physical state resulting from prior experiences, attitudes, skills, abilities and personality; and from the **context of use**.

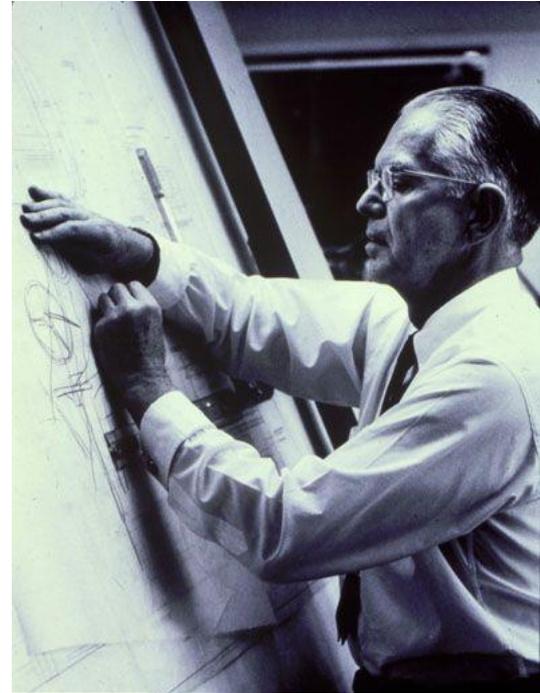
*ISO 9241-11: Ergonomics of human-system interaction*

# UX is of all times

## Ocean liner 'SS Constitution' (1950)

*“Design is a process—an intimate collaboration between engineers, designers & clients.”*

- Henry Dreyfuss, industrial design pioneer



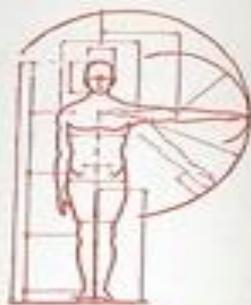
# UX is of all times

## Ocean liner 'SS Constitution' (1950)

- Prototyped 8 complete cabins in a warehouse in New Jersey
- Brought in potential travellers to:
  - Unpack luggage and settle in
  - “Live” in rooms, using phones, lights, etc.
  - Pack for home



# DESIGNING



Simon and Schuster, New York, 1955

# FOR PEOPLE

*We bear in mind that the object being worked on is going to be ridden in, sat upon, looked at, talked into, actuated, operated, or in some other way used by people individually or en masse.*

*When the point of contact between the product and the people becomes a point of friction, then the industrial designer has failed.*

*On the other hand if people are made safer, more comfortable, more eager to purchase, more efficient—or just plain happier—by contact with the product, then the designer has succeeded.*

by HENRY DREYFUSS

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EXTENSION

# UX IS ABOUT PEOPLE

There is no user experience, without the user.

People don't behave the way you want them to.  
We seek **shortcuts** and **work-arounds** to **minimise effort**,  
And get frustrated when inefficient paths are forced upon us.



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**User-centered design**



**User experience** applies user-centered design to:

- understand users' context, needs & behaviour,
  - design experiences that support people instead of working against them,
  - while serving the business goals at the same time.
- 





**People won't stop staring at their phones, so a Dutch town put traffic lights on the ground**

qz.com 

On Saturday 13/01/2018, 8am, all Hawaiians received a text...





EMERGENCY ALERTS

7m ago

### **Emergency Alert**

There is no missile threat or danger to the State of Hawaii. Repeat. False Alarm.



EMERGENCY ALERTS

45m ago

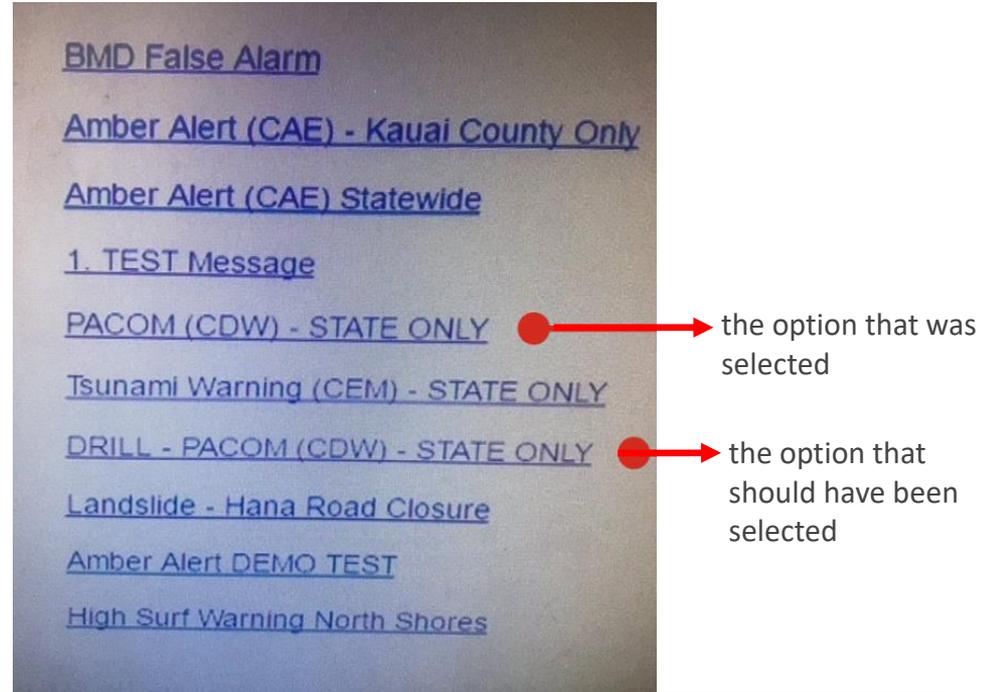
### **Emergency Alert**

BALLISTIC MISSILE THREAT INBOUND TO HAWAII. SEEK IMMEDIATE SHELTER. THIS IS NOT A DRILL.

# Hawaii's false ballistic missile alert

## Human error? → Design error

- It took 38 minutes before Hawaiian citizens received a false alarm message.
- Officials blamed it on “Human error”
  - Poorly designed systems: Design error
- People make errors and behave imperfectly. Designed systems should take this into account.



**DO NOT  
PUSH  
BUTTON**

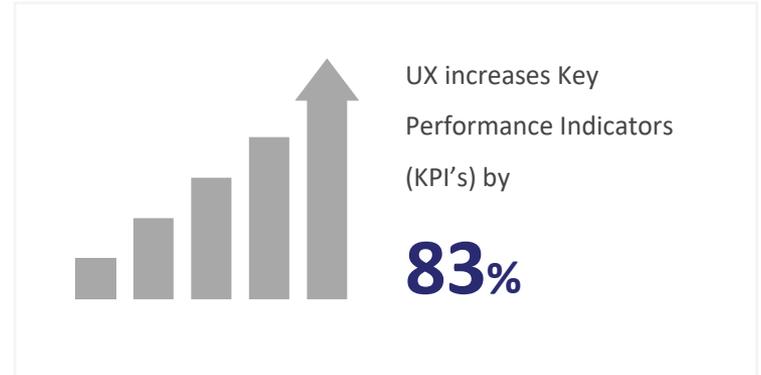


Good UX should make it **very hard**  
to do the **wrong** thing,  
and **very easy** to do the **right** thing.



# Good UX is good for business

- Lower support calls (cost)
- Reduced development waste (efficiency)
- Conversion rate
- Increase customer satisfaction
- More return users
- Competitive advantage



## Design led businesses



Better performance than peers



Higher growth in returns to shareholders



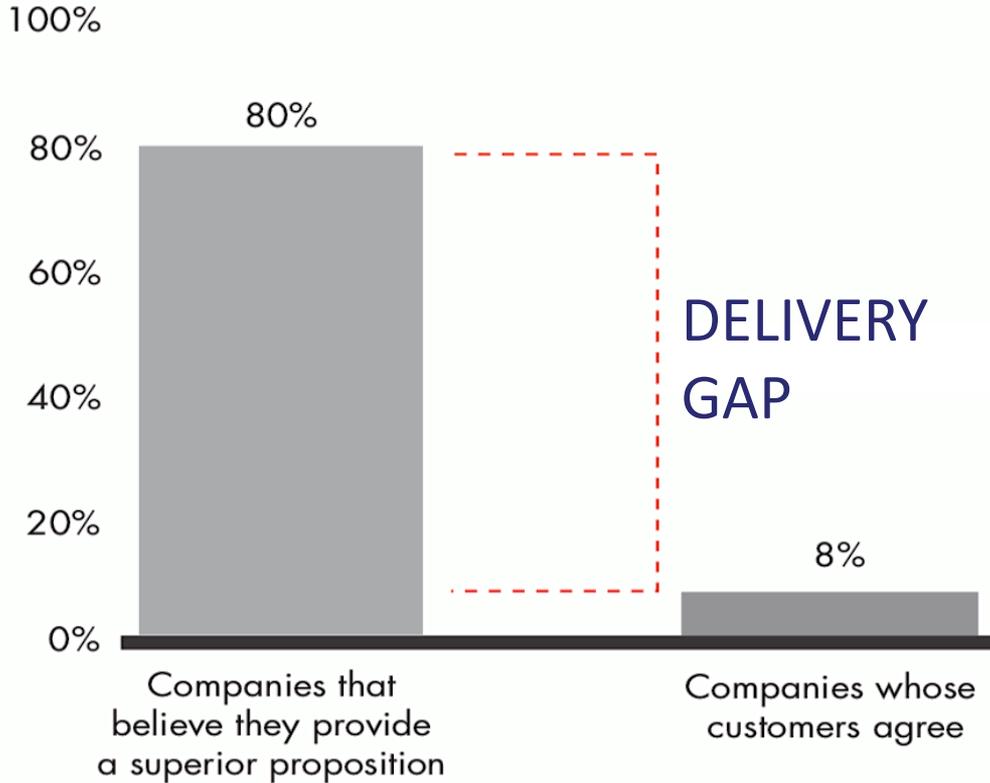
Higher revenue growth



Have seen market share increase, 2x the average.

*The business value of design, 2018 McKinsey*

Percentage of companies



*“Most people make the mistake of thinking design is what it looks like. That's not what we think design is.*

*It's not just what it looks like and feels like.  
Design is how it works.”*

*- Steve Jobs, Apple*

B.

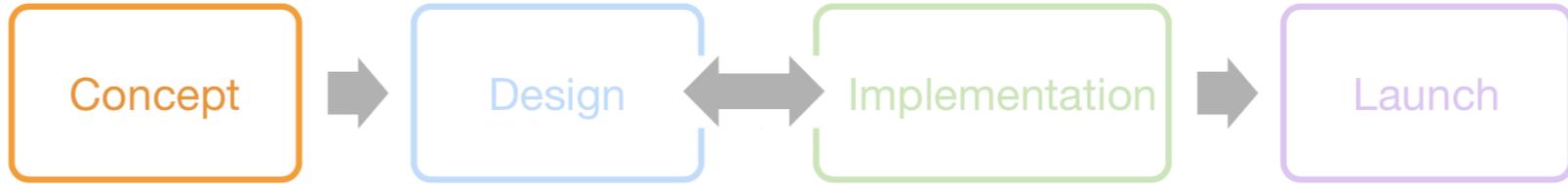
## UX in the product lifecycle



# 1. Concept

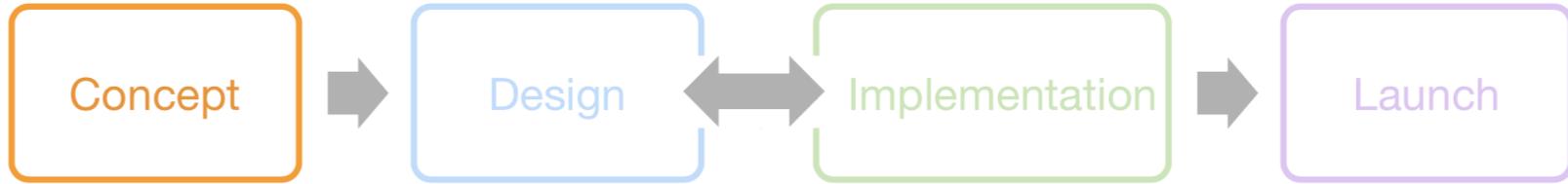


## B. UX in the product lifecycle



- 1.1 UX Strategy
- 1.2 User research
- 1.3 Personas
- 1.4 Journey mapping

## B. UX in the product lifecycle



### 1.1 UX Strategy

1.2 User research

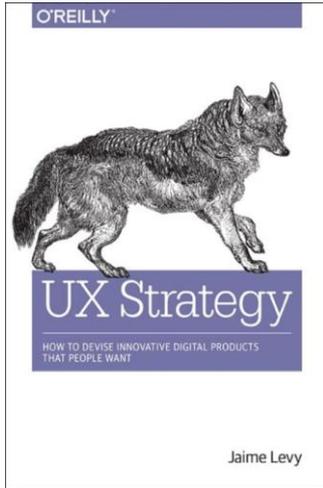
1.3 Personas

1.4 Journey mapping

# UX strategy

- Why are we doing this?
- What are we trying to accomplish?
- Who are our users?
- What are the user goals & needs?
- What results/value will be created for the user?
- What's currently working/not working?

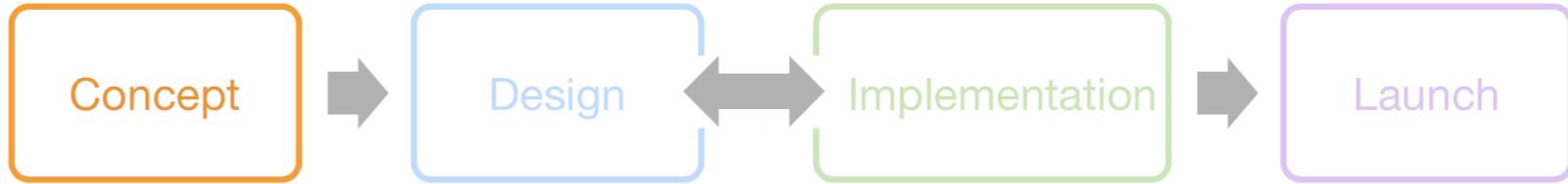
→ Business goals + user goals



UX Strategy lies at the crossroads of UX design and business strategy.

It's a plan-of-action on how to find out if the user experience of a product is aligned with the business objectives.

## B. UX in the product lifecycle



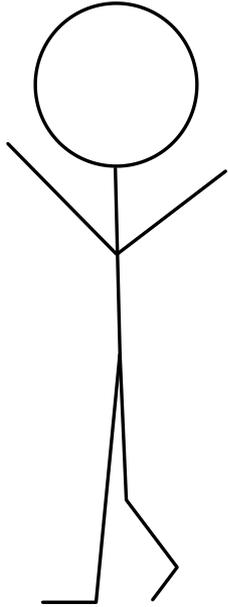
1.1 UX Strategy

**1.2 User research**

1.3 Personas

1.4 Journey mapping

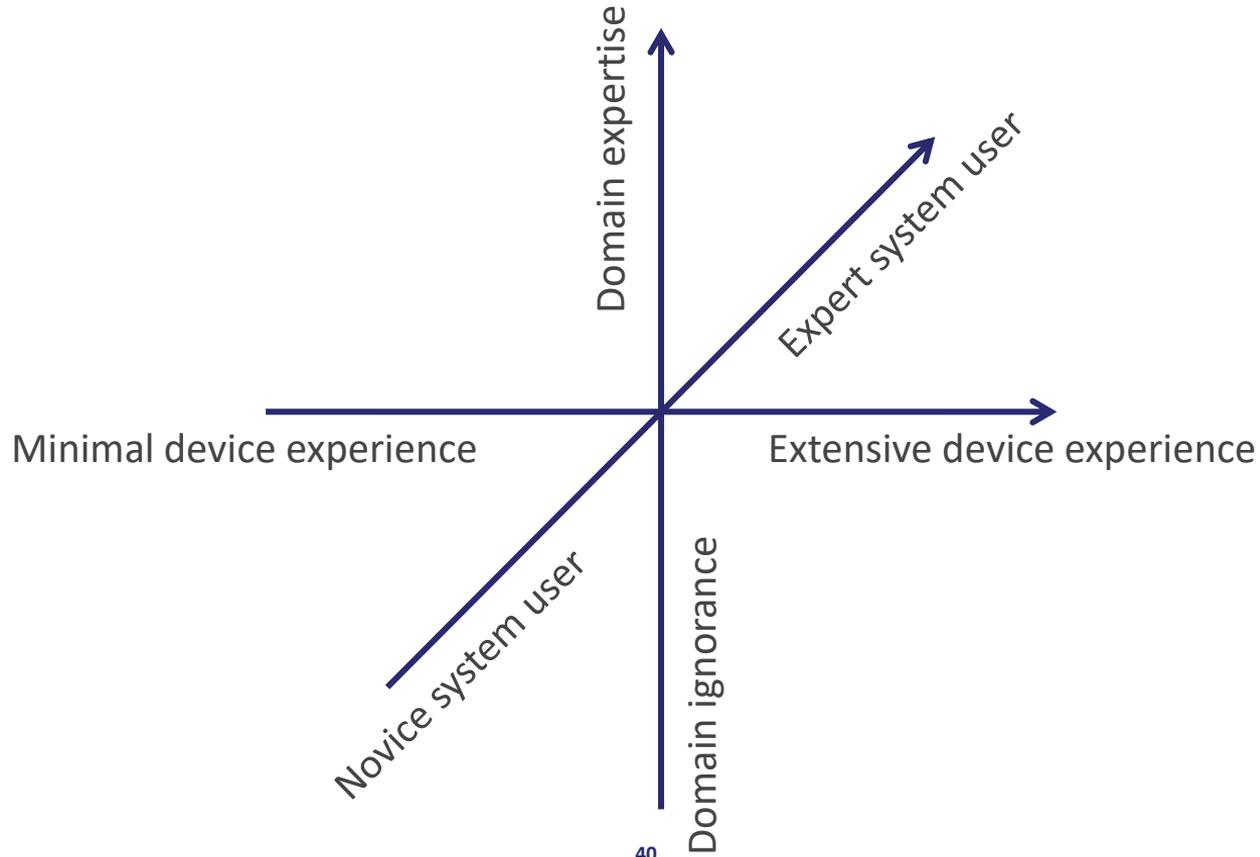
# Who are your users?



- Goals
- Needs
- Expectations
- Behaviour
- Motivations
- Workflows

You are NOT the user!

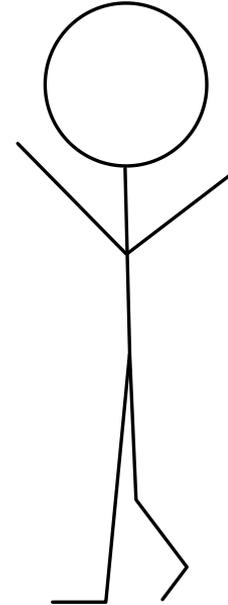
# Experiences differ along multiple aspects



# If we don't understand our users...

## We make untested assumptions and end up designing for...

- Ourselves
- Our assumptions
- Our colleagues
- Our competitors
- Our partners
- Our moms



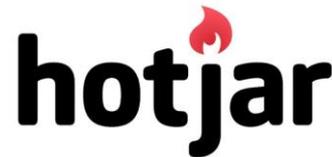
# User research

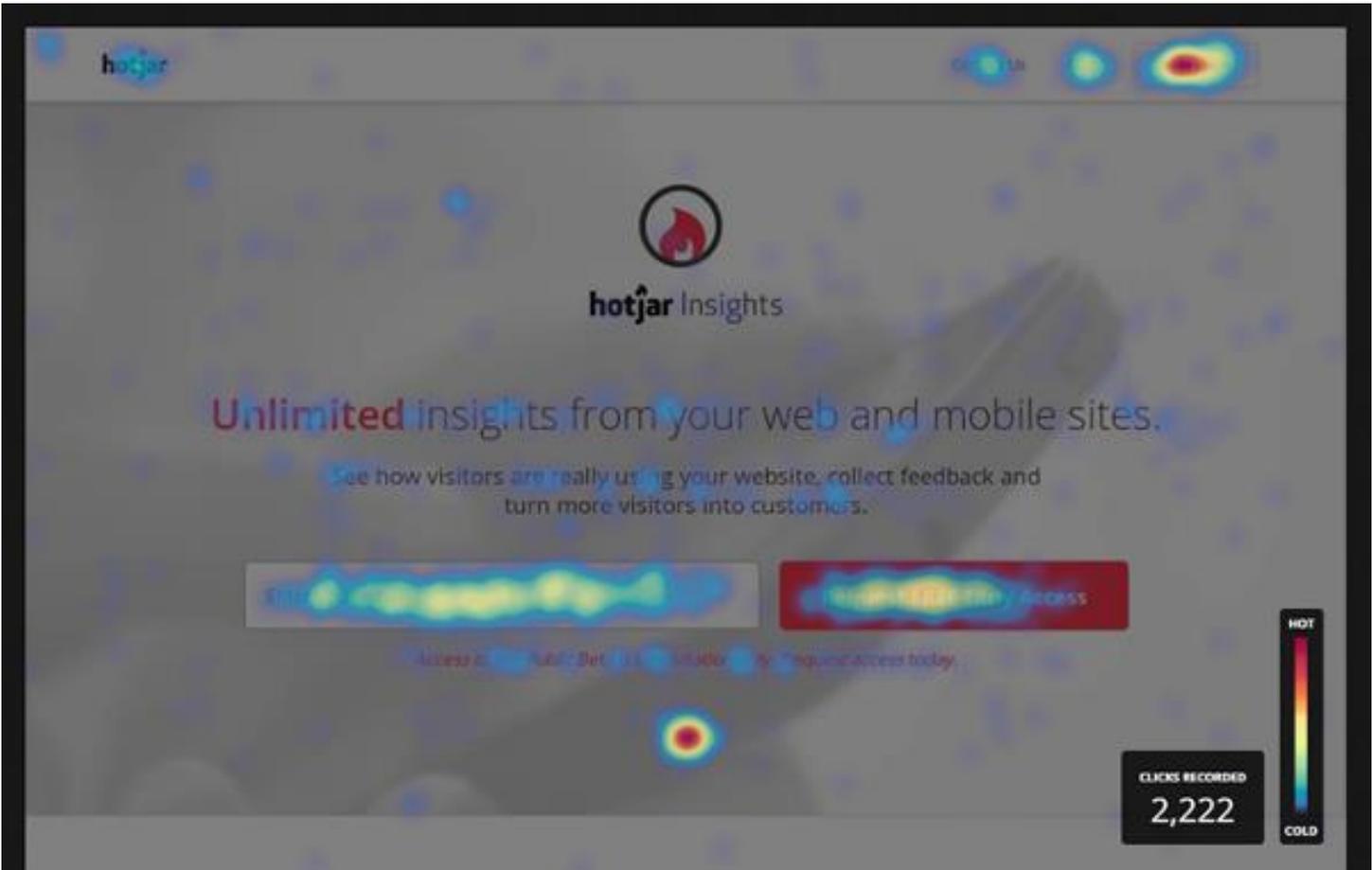


# Get data



- Analytics
  - Collect & analyse real user actions on a live website or application
  - Tells you What, but not Why
    - Clicks
    - Scrolling
    - Hovering
    - ... but not user intent
- Visualize user behavior
  - Recordings
  - Heatmaps
  - Scroll maps





# Soft data must be interpreted

## “Hard” data

- Subscriptions
- Registrations
- Survey completions
- Blog comments
- Blog posts
- Ad clickthroughs
- Purchases
- Leads

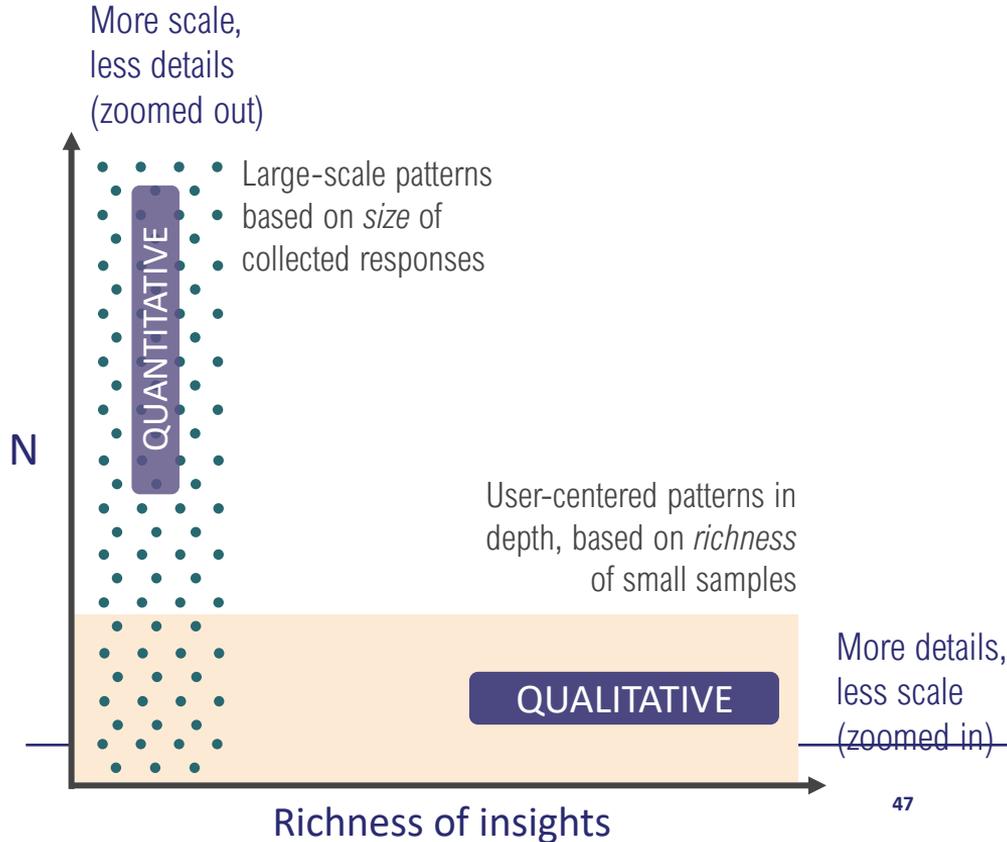
## “Soft” data

- Pageviews
- Time on page
- Page depth
- Search
- Clickthroughs
- Purchase history
- Frequency
- Engagement

Not everything valuable is  
measurable

# Better together

We need both qualitative & quantitative data to triangulate a complete picture



# User research

## Types

- Contextual inquiry
- Shadowing
- Diary studies





# User research

## Contextual inquiry

- Interviewees are interviewed in their context, when doing their tasks
- Avoid sitting in a conference room!
- Ask open-ended questions
- Ask for specific stories
- How many users should be interviewed or observed?
  - Talk to 5-30 participants
  - Trends are often observable from just 5 people



# User research

## Planning

- Determine who to talk to
- Plan a script/scenario
  - Determine the insights you are looking for
  - Sets you up for analysis later on
- Transcribe the interviews
- Interpret insights
- Report on insights

# User research

## Other insights

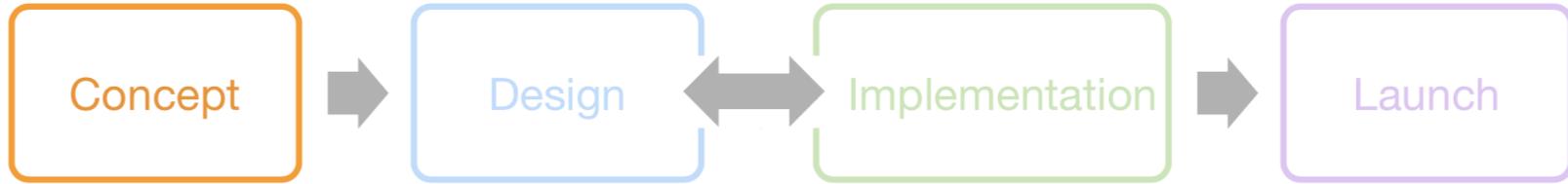
- Expert review (heuristic evaluation)
- Interview to internal staff
  - Support
  - Customer success
- Competitor analysis
- Comparative analysis

# User research

## Books



## B. UX in the product lifecycle



- 1.1 UX Strategy
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- 1.3 Personas**
- 1.4 Journey mapping

# Personas

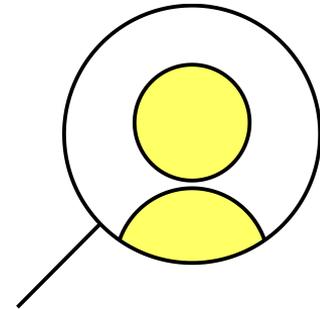
## User archetypes

Why personas?

To create products that are useful, usable, and desirable for our customers, we have to understand **who our users are and what they need.**

= alignment and knowledge transfer tool

-> help focus the team



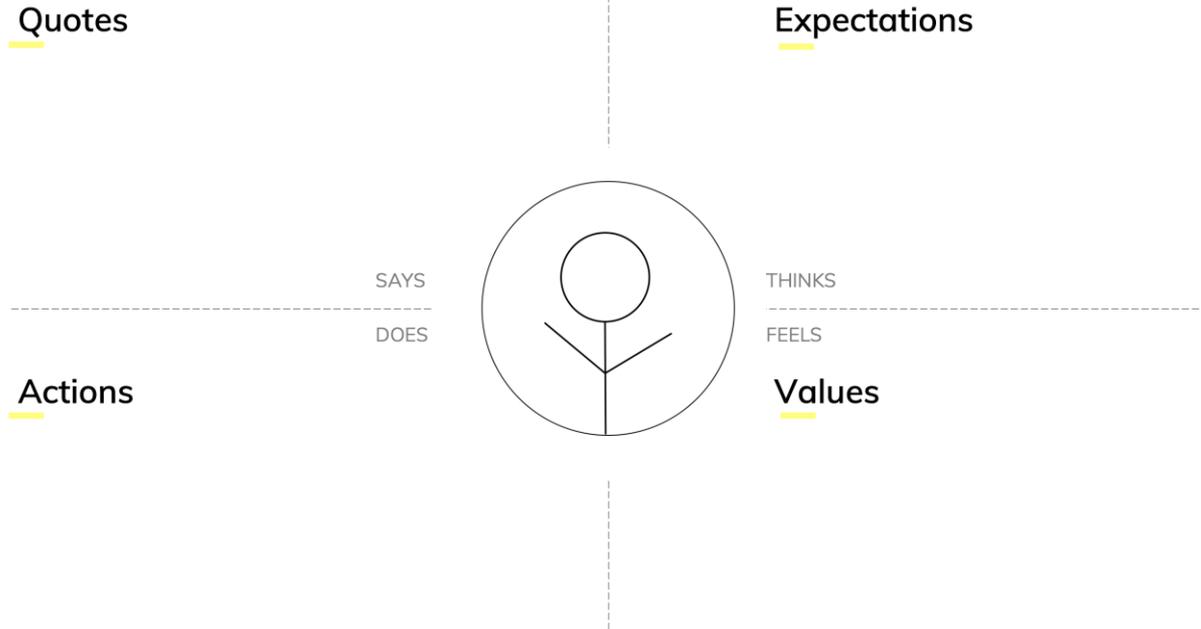
# Personas

Labels conceal more than they reveal



# Empathy mapping

## Tool for creating personas





## PERSONA PROFILE



"I want to get as many of my images out there to make a name for myself in this creative industry."



## Jade The Emerging Creative

Age: 29

Occupation: Commercial Photographer

Location: Chicago, IL

With three years of experience in commercial photography, most experts would consider Jade a fresh face in the industry. She's tired of the label and wants her work to be more recognized.

Jade's been building her portfolio with unique and edgy photoshoots with marketing appeal that she sends to clients and Corbis Images. She does it all on the creative side, from creating the concept, working with the models, and editing photos. Jade enjoys the post production work the most, as she is able to utilize the latest technology, from touching up subjects to incorporating computer generated elements to her photos. While Jade enjoys the artistic aspect, she dislikes dealing with administrative tasks such as model releases. Jade wants her clients to trust that her creative photography can help sell their product, but that trust comes with building a reputable name in the industry.

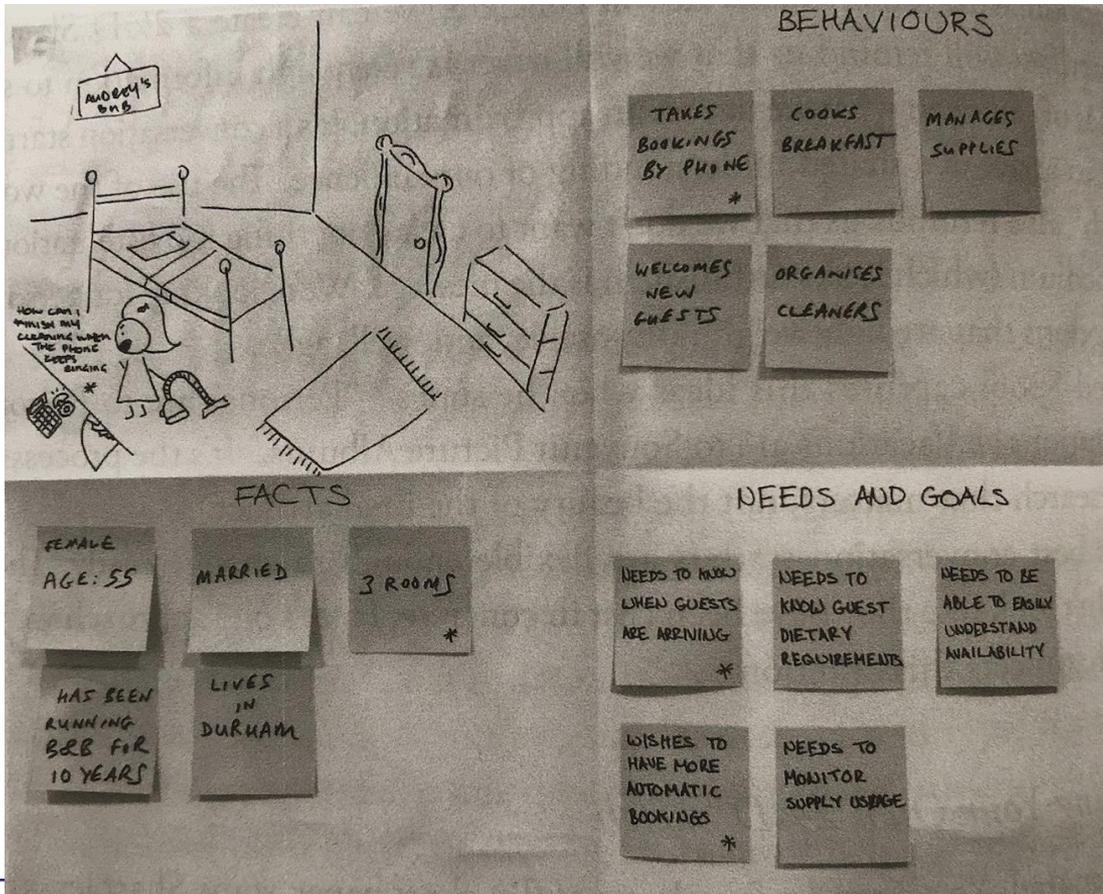
### Jade's Questions

- I am looking to diversify my portfolio. How can I learn about the latest trends in creative photography?
- How can I portray the message of my images to those who view and purchase my work?
- How can I efficiently communicate with my editor to generate ideas?
- What is a simple way to complete administrative tasks such as model releases?

### Jade's Goals

- I want to make a name for myself in the creative industry. I am looking to develop my prestige and reputation.
- There are many steps to a successful photo shoot and I would rather not deal with the complicated administrative tasks. I want something that can streamline these tasks into my workflow.
- I enjoy thinking outside of the box and having someone to generate ideas with.

	LOW	MID	HIGH
NEEDS	Speed		
	Adaptability		
	Editor		
TASKS	Upload		
	Input Info		
	Royalties		
	Communication		
KNOWLEDGE	Technology		
	Trends		
	Contracts		
	Image Editing		



## BEHAVIOURS

- TAKES BOOKINGS BY PHONE \*
- COOKS BREAKFAST
- MANAGES SUPPLIES
- WELCOMES NEW GUESTS
- ORGANISES CLEANERS

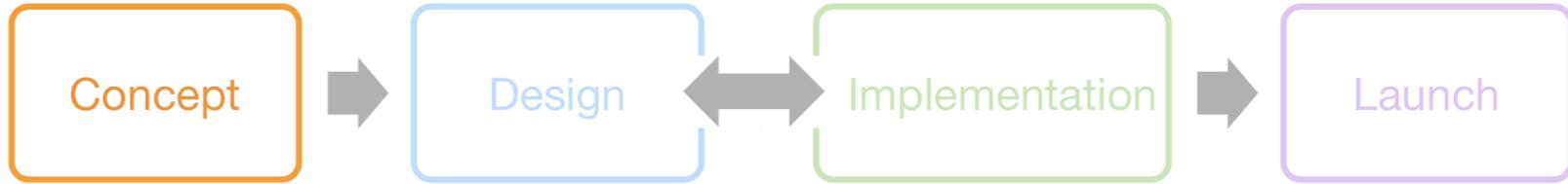
## FACTS

- FEMALE
- AGE: 55
- MARRIED
- 3 ROOMS \*
- HAS BEEN RUNNING BNB FOR 10 YEARS
- LIVES IN DURHAM

## NEEDS AND GOALS

- NEEDS TO KNOW WHEN GUESTS ARE ARRIVING \*
- NEEDS TO KNOW GUEST DIETARY REQUIREMENTS
- NEEDS TO BE ABLE TO EASILY UNDERSTAND AVAILABILITY
- WISHES TO HAVE MORE AUTOMATIC BOOKINGS \*
- NEEDS TO MONITOR SUPPLY USAGE

## B. UX in the product lifecycle

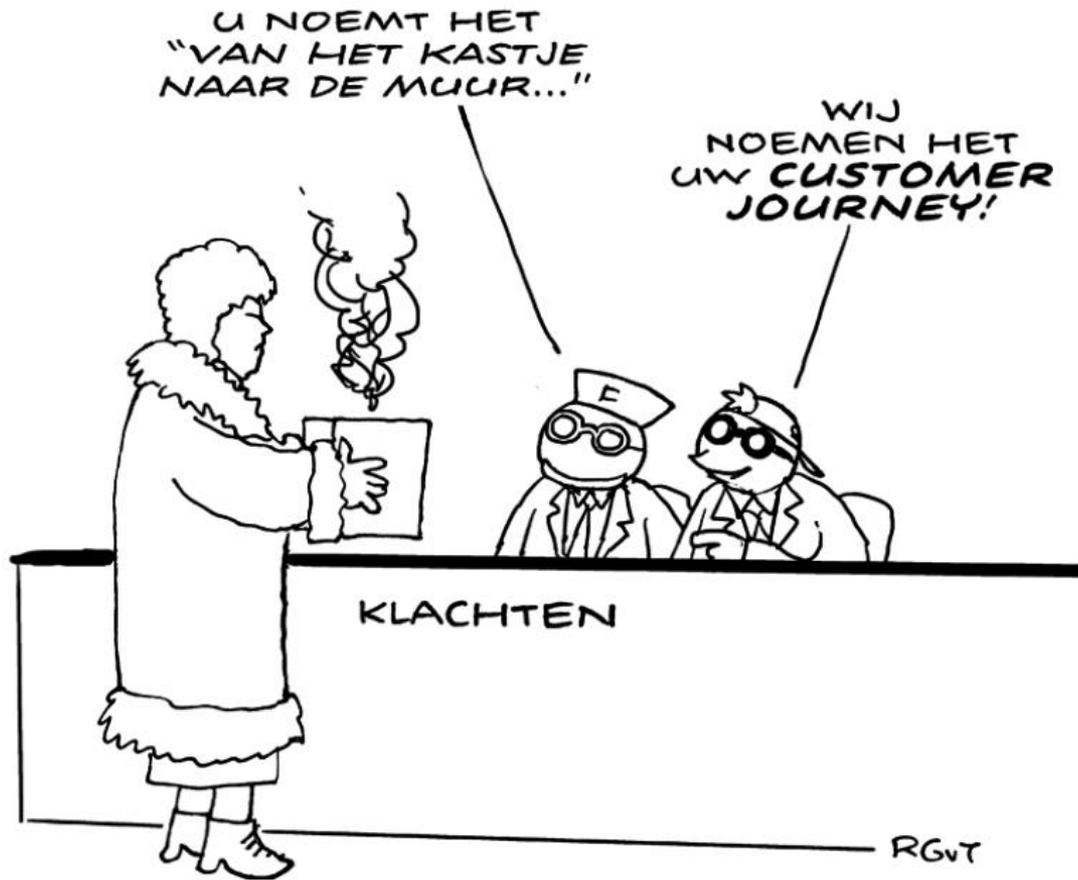


1.1 UX Strategy

1.2 User research

1.3 Personas

**1.4 Journey mapping**



# Journey mapping

A **journey map** is a visualization of the process that a customer/user goes through to achieve a goal (scenario).

It contains extensive info about the different steps of the journey — including not only the user's actions, thoughts, and emotions.

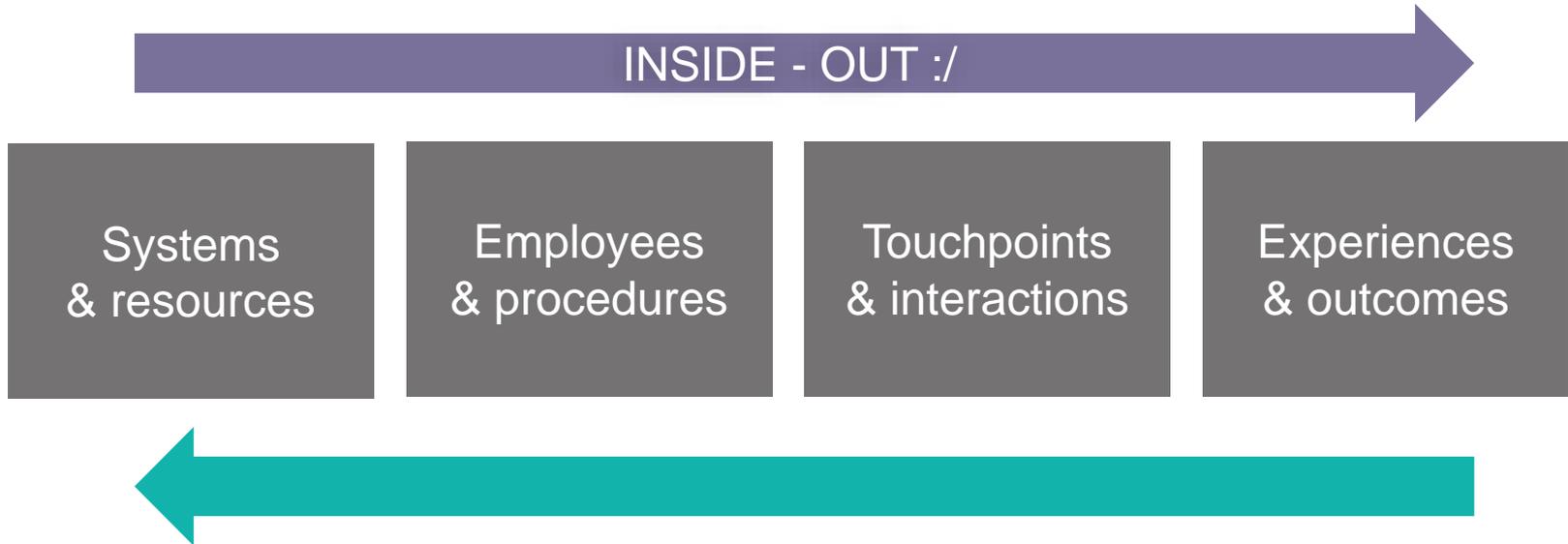
- Customer journey
- Experience map
- Service Blueprint

# Customer journey map

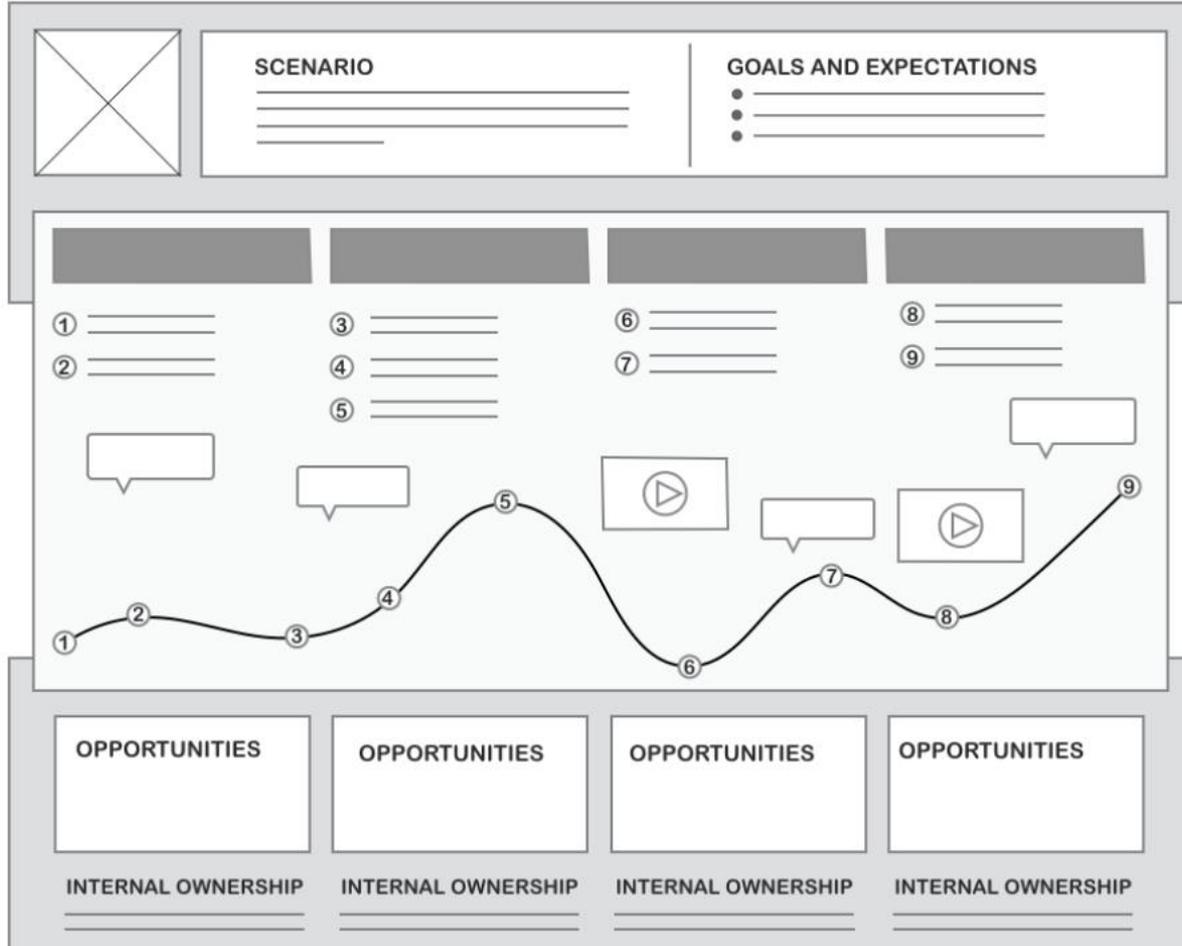
A visualization of the series of interactions a person has with a company while attempting to accomplish a goal **over time and across channels.**

Used for understanding and addressing customer needs and pain points

# Outside-in approach



# Customer Journey Map: Framework and Zones



**Zone A: The Lens**

actor scenario

**Zone B: The Experience**

phases actions, thoughts, emotions

**Zone C: The Insights**



opportunities

Understand

Research

Select

Advocate

Maintain

customer actions  
(Doing)

customer thoughts  
(Thinking)

customer emotions  
(Feeling)

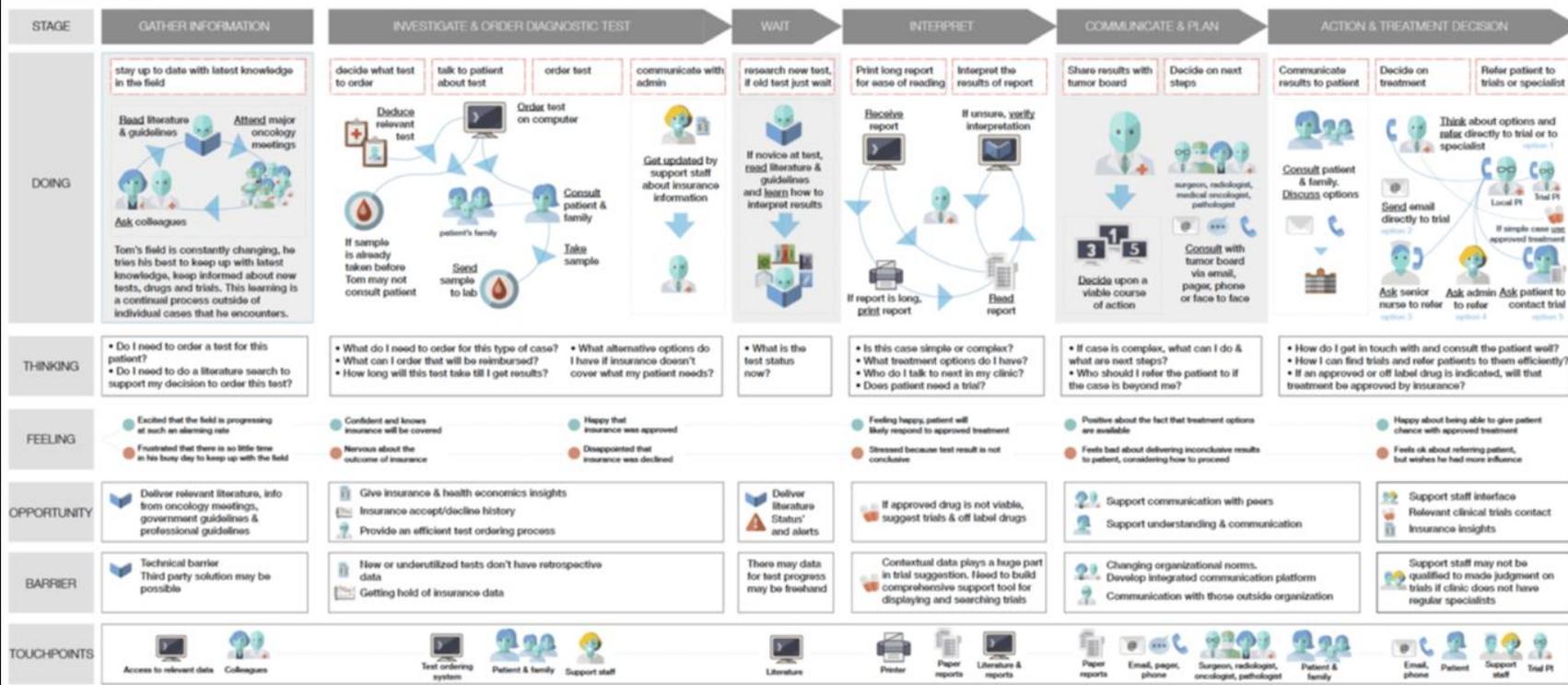
insights/  
opportunities

# User Journey - Traditional Tom and a molecular pathology test



Scenario: Tom goes through the process of ordering a test with a sample taken from the patient, receiving the report, communicating results and finally making a decision about what to do next.

The purpose of this document is to demonstrate the way in which Tom currently interacts with molecular pathology reports. This way we can identify possible bottlenecks and inspire vision for what the future state of Tom's work could be with the GenoSpace Physician Portal. The columns represent subtasks that Tom performs. Columns show what Tom is doing, thinking and feeling. Opportunities highlight areas where there is a latent need. Barriers show difficulties that may arise in creating a solution. Touchpoints are things and people Tom interacts with.

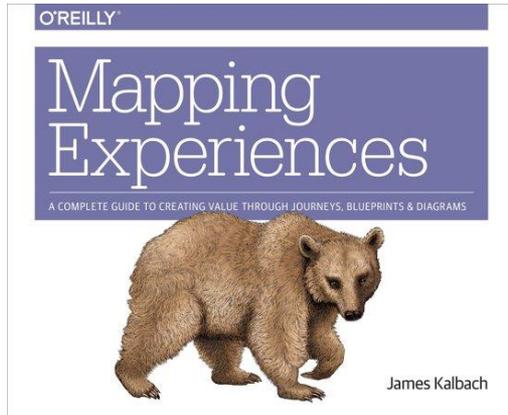


*"In many ways,  
customers are the **only common ground**  
that can be shared by every function  
across the business."*

**- Livework**

# Journey mapping

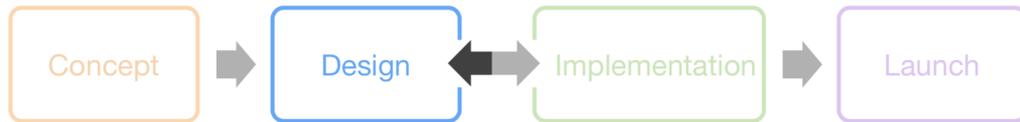
## Books & tools



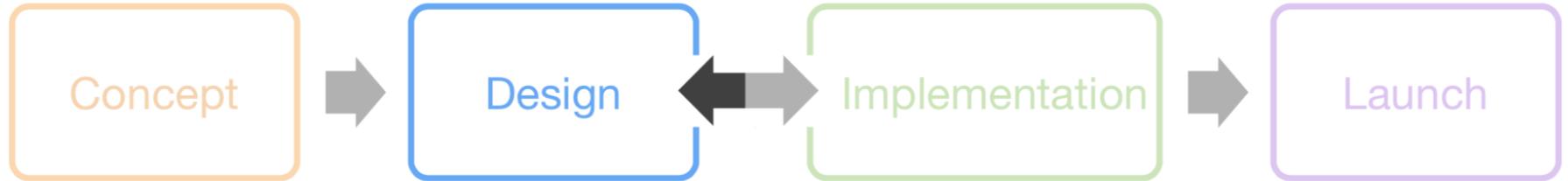
**miro** FORMERLY  
REALTIMEBOARD



## 2. Design



## B. UX in the product lifecycle



- 2.1 Information architecture & navigation
- 2.2 General principles
- 2.3 UI tips & tricks
- 2.4 Psychology of design
- 2.5 Interaction design
- 2.6 Usability testing

# Elements of design

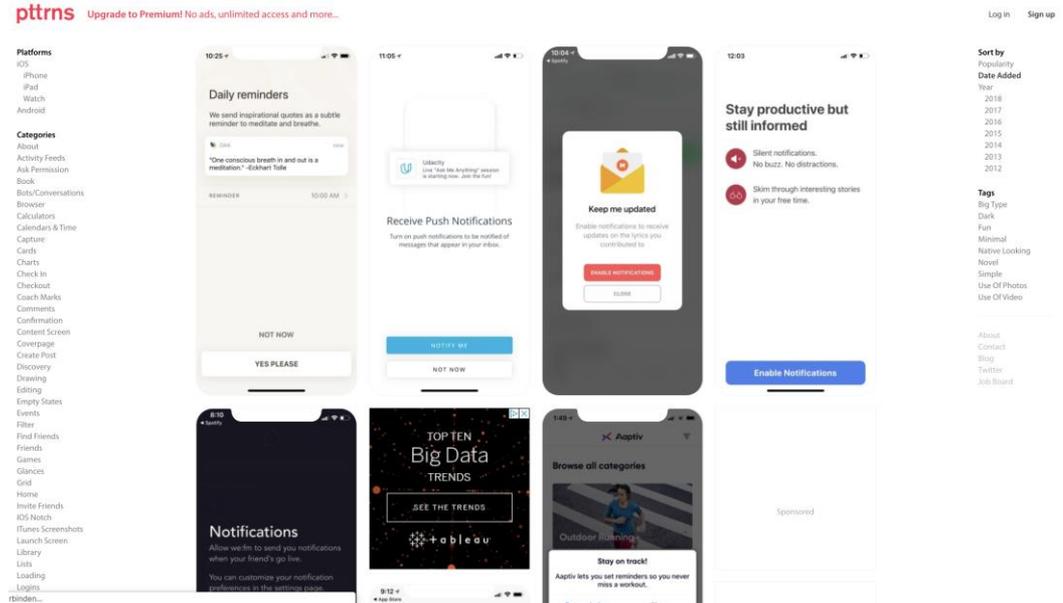
- Visual design: how it looks
- Interaction design: how it works
- Information architecture: how it's organized
- Content: what it says & how it sounds
- Functionality: what it does

→ Design, test, and repeat !

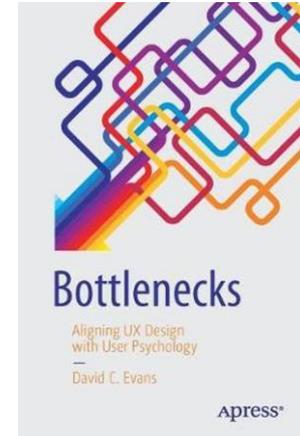
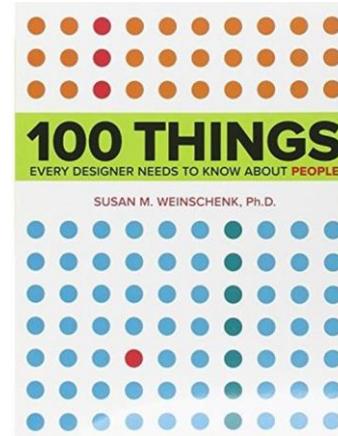
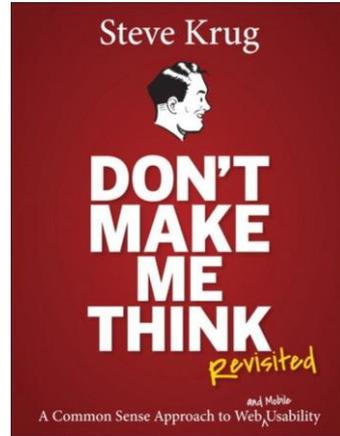
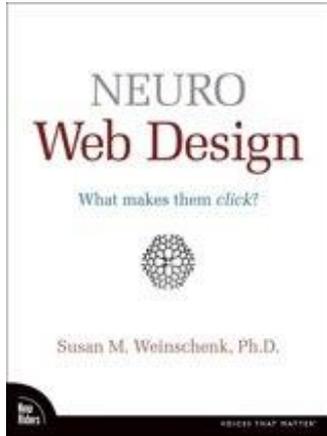
Even experienced designers need to test their ideas.

# Principles & conventions

- Usability guidelines
- Psychology concepts
- Accessibility requirements
- Pattern libraries
  - ui-patterns.com
  - searchpatterns.org
  - pptrns.com
- Design systems
  - Google Material design
  - IBM design system
  - ADG by Atlassian
  - Airbnb Design system
- Platform conventions
- goodui.org



# Books



# User Experience Design

Kathleen Van den Keybus

October 2021



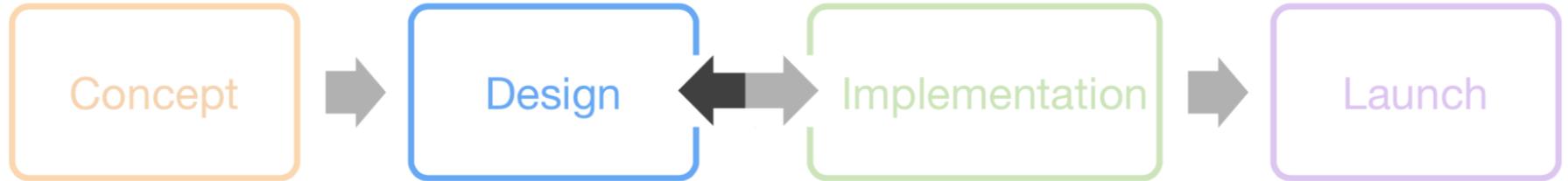
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## B. UX in the product lifecycle



### 2.1 Information architecture & navigation

2.2 General principles

2.3 UI tips & tricks

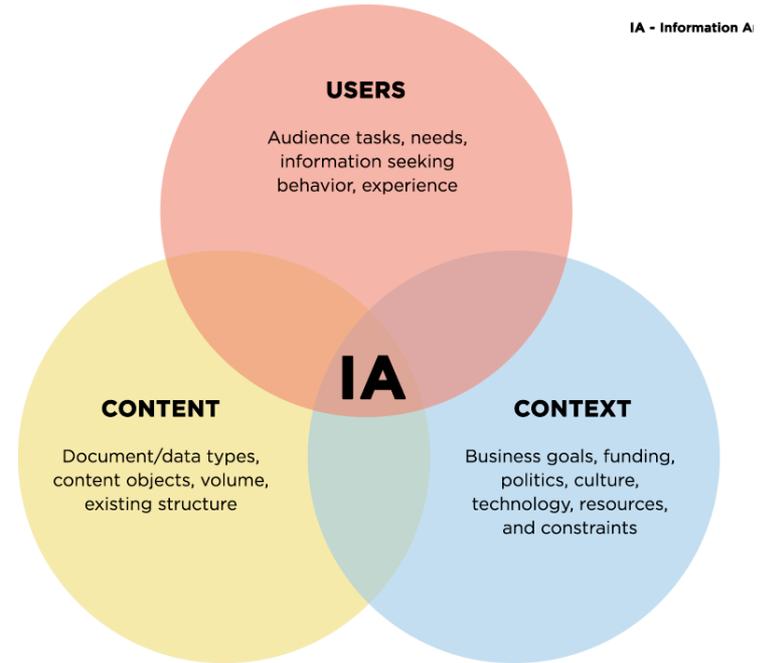
2.4 Psychology of design

2.5 Interaction design

2.6 Usability testing

# Information architecture & navigation

- Can users **find** information?
- What information should be **grouped** together?
- What navigation **labels** should we use?  
What's the most **meaningful**?



*“Navigation is the manifestation of **what is possible** in a tool/app and when people can’t see what’s possible, they likely won’t know what they can/should do.”*

**- Luke Wroblewski, Google Product Director**

# Navigation tests

## Information architecture & navigation

- Card sorting

A quick and easy way to design an information architecture, workflow, menu structure or website navigation paths.



OptimalSort

- Tree testing

A usability technique for evaluating the findability of topics in a website.

(= 'reverse card sorting')



Treejack

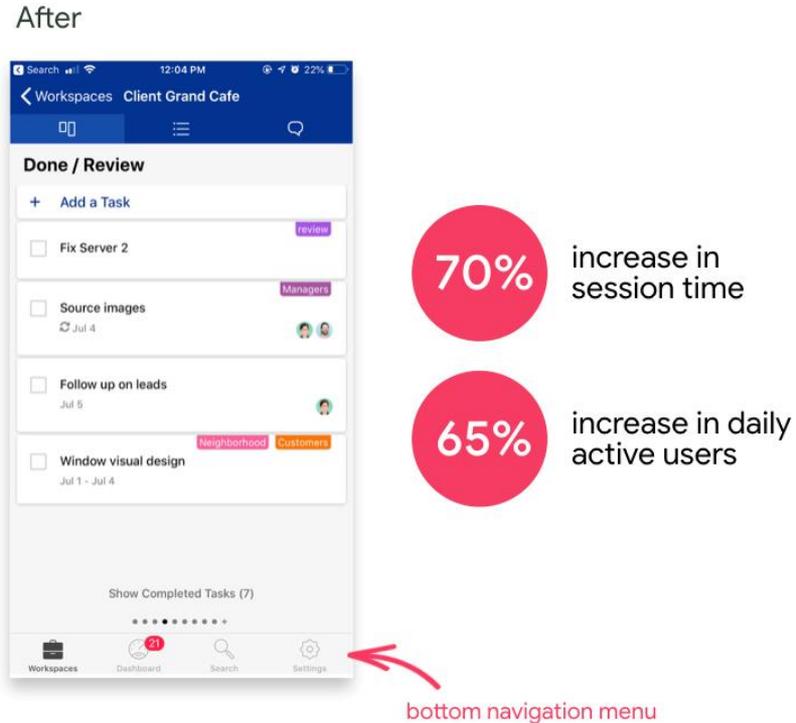
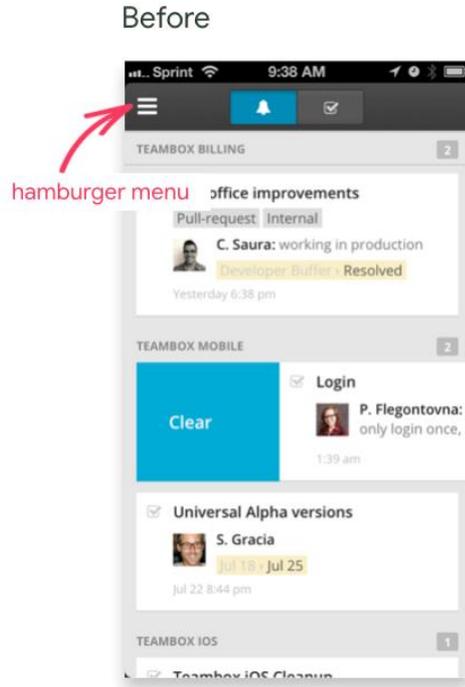
# Navigation tests

## Card sorting

- Write the name (and perhaps a short description) of each of the main items on an index card.
- Shuffle the cards and give the deck to a user.
- Ask each user to sort the cards into piles, placing items that belong together in the same pile. Users can make as many or as few piles as they want; some piles can be big, others small.
- *Optional extra steps:* ask users to arrange the piles into bigger groups, and to name the different groups and piles.  
This step can give you ideas for words and synonyms to use for navigation labels, links, headlines, and search engine optimization.

# Hamburger menu <> bottom navigation bar

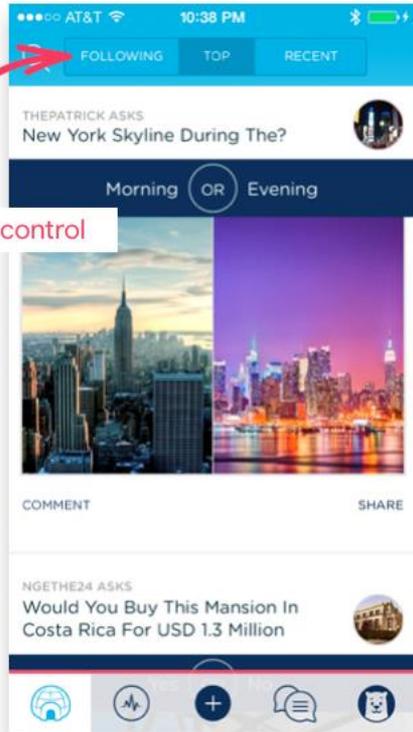
## Information architecture & navigation



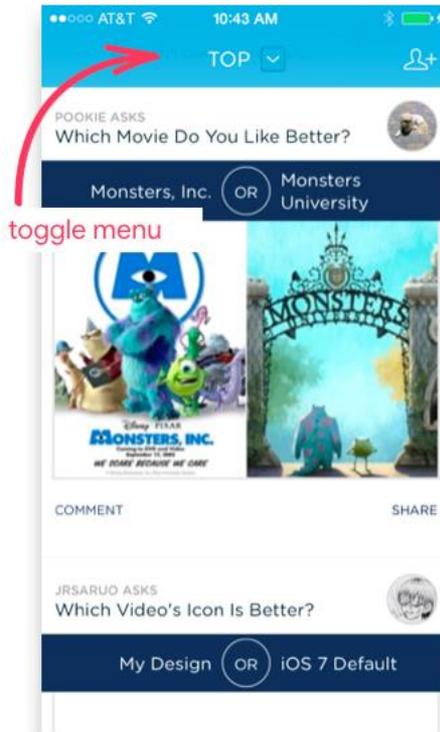
# Segmented controls <> toggle menu

## Information architecture & navigation

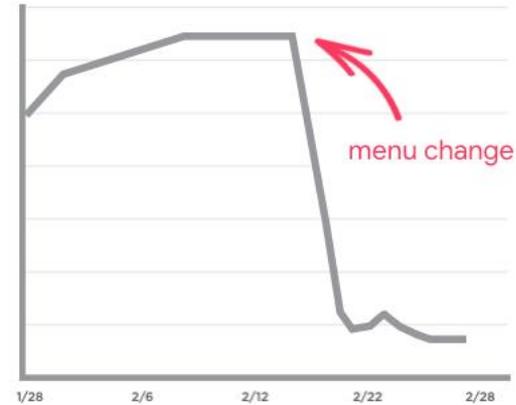
Before



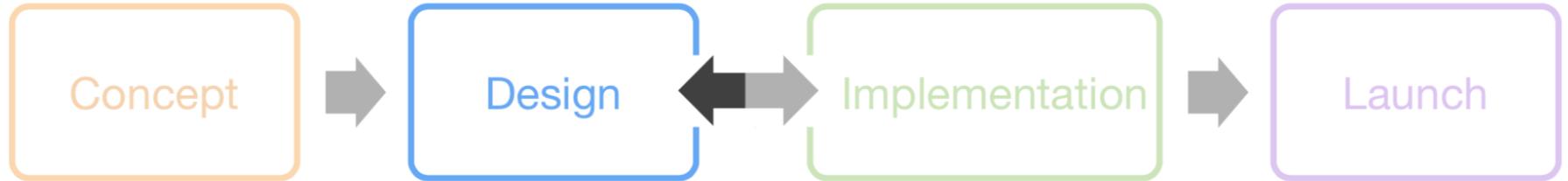
After



decrease in daily engagement



## B. UX in the product lifecycle



2.1 Information architecture & navigation

**2.2 General principles**

2.3 UI tips & tricks

2.4 Psychology of design

2.5 Interaction design

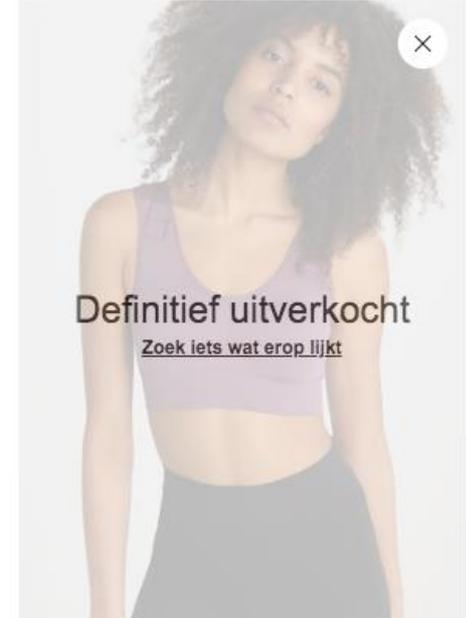
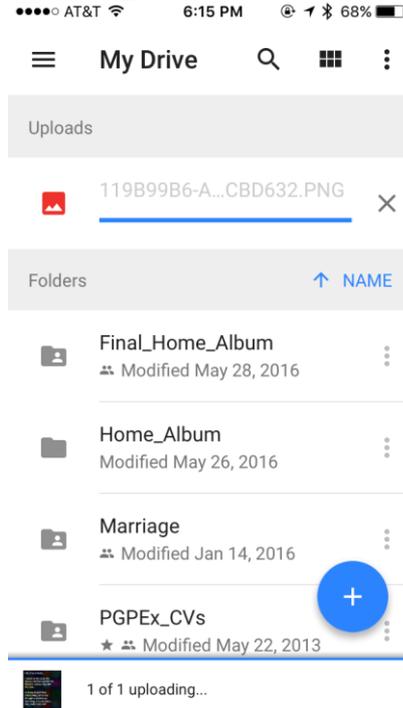
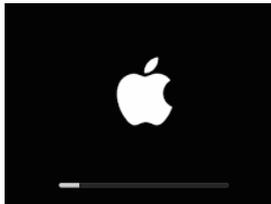
2.6 Usability testing

# #1 Visibility of system status

## Jakob Nielsen's 10 general principles for interaction design

The design should always keep users informed about what is going on, through appropriate feedback within reasonable time.

When users know the current system status, they learn the **outcome of their prior interactions and determine next steps**. Predictable interactions create **trust in the product as well as the brand**.



# #1 Visibility of system status

## Jakob Nielsen's 10 general principles for interaction design

### Tips

- Communicate clearly to users what the system's state is — no action with consequences to users should be taken without informing them.
- Present feedback to the user as quickly as possible (ideally, immediately).
- Build trust through open and continuous communication.

## #2 Match between system and the real world

### Jakob Nielsen's 10 general principles for interaction design

The design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon.

Follow real-world conventions, making information appear in a natural and logical order.



## #2 Match between system and the real world

### Jakob Nielsen's 10 general principles for interaction design

#### Tips

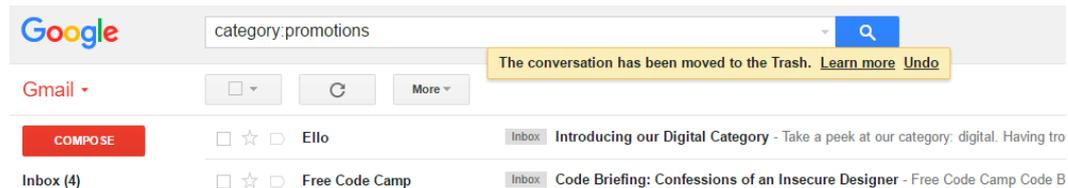
- Ensure users can understand meaning without having to go look up a word's definition.
- Never assume your understanding of words or concepts will match those of your users.
- User research will help you uncover your users' familiar terminology, as well as their mental models around important concepts.

# #3 User control and freedom

## Jakob Nielsen's 10 general principles for interaction design

Users often perform actions by mistake. They need a clearly marked "emergency exit" to leave the unwanted action without having to go through an extended process.

When it's easy for people to back out of a process or undo an action, it fosters a sense of **freedom and confidence**. Exits allow users to remain in control of the system and avoid getting stuck and feeling frustrated.



# #3 User control and freedom

## Jakob Nielsen's 10 general principles for interaction design

### Tips

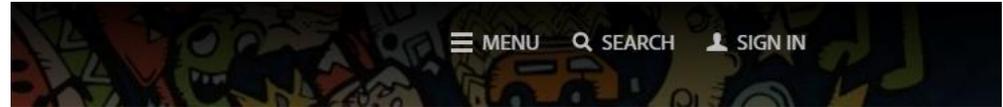
- Support Undo and Redo.
- Show a clear way to exit the current interaction, like a Cancel button.
- Make sure the exit is clearly labeled and discoverable.

# #4 Consistency and standards

## Jakob Nielsen's 10 general principles for interaction design

Users should not have to wonder whether different words, situations, or actions mean the same thing.

Follow platform and industry conventions.



Gratis verzending vanaf 20 euro, gratis retourneren, bezorging waar en wanneer je wilt met **Select** artikelen\*

**bol.com**

Waar ben je naar op zoek?

Alles  

Welkom  
Kathleen   

Submit

Submit

## #4 Consistency and standards

### Jakob Nielsen's 10 general principles for interaction design

#### Tips

- Improve learnability by maintaining both types of consistency: internal and external.
- Maintain consistency within a single product or a family of products (internal consistency).
- Follow established industry conventions (external consistency).

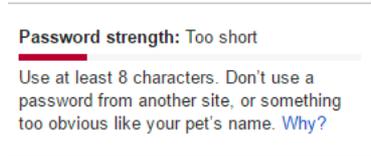
# #5 Error prevention

## Jakob Nielsen's 10 general principles for interaction design

Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.

There are two types of errors: **slips** and **mistakes**

- Slips are unconscious errors caused by inattention.
- Mistakes are conscious errors based on a mismatch between the user's mental model and the design.



# #5 Error prevention

## Jakob Nielsen's 10 general principles for interaction design

### Tips

- Prioritize your effort: Prevent high-cost errors first, then little frustrations.
- Avoid slips by providing helpful constraints and good defaults.
- Prevent mistakes by removing memory burdens, supporting undo, and warning your users.

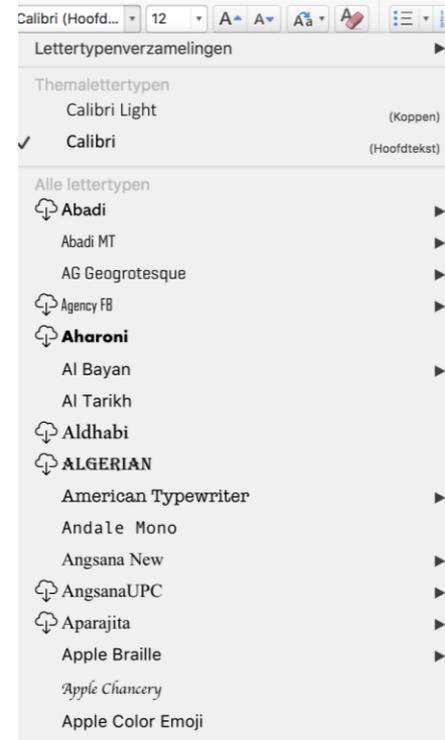
# #6 Recognition rather than recall

## Jakob Nielsen's 10 general principles for interaction design

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the interface to another.

Information required to use the design (e.g. field labels or menu items) should be visible or easily retrievable when needed.

Humans have limited short-term memories. Interfaces that promote recognition reduce the amount of cognitive effort required from users.



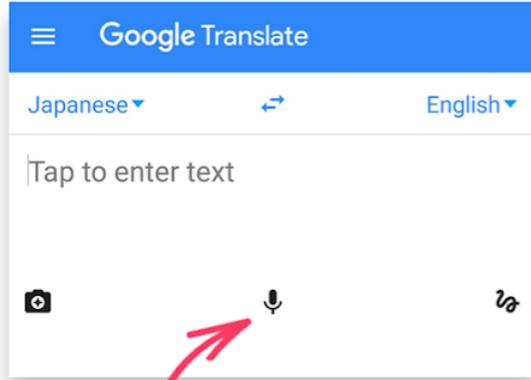
# #6 Recognition rather than recall

## Jakob Nielsen's 10 general principles for interaction design

### Tips

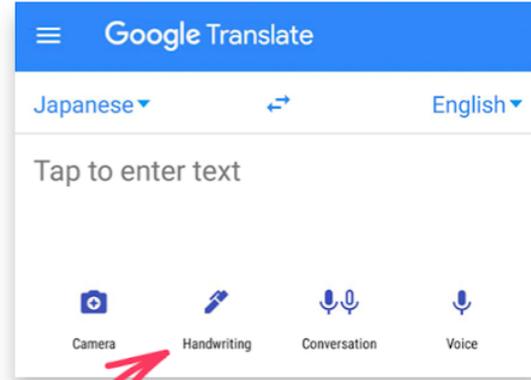
- Let people recognize information in the interface, rather than having to remember (“recall”) it.
- Offer help in context, instead of giving users a long tutorial to memorize.
- Reduce the information that users have to remember.

Before



icon only

After



icon and text

25%

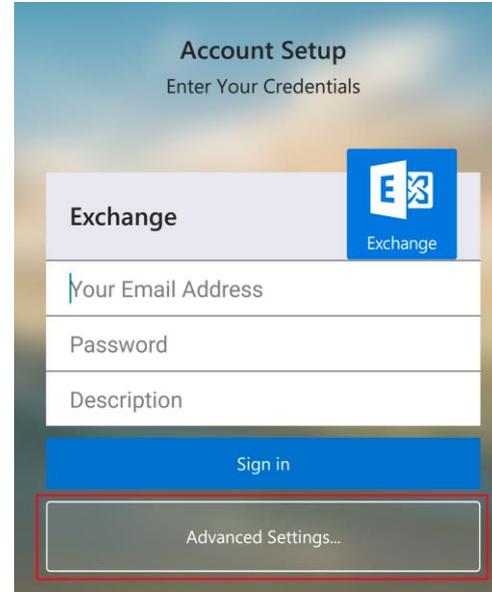
increase in  
handwriting feature  
usage

# #7 Flexibility and efficiency of use

## Jakob Nielsen's 10 general principles for interaction design

Shortcuts — hidden from novice users — may speed up the interaction for the expert user such that the design can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

Flexible processes can be carried out in different ways, so that people can pick whichever method works for them.



# #7 Flexibility and efficiency of use

## Jakob Nielsen's 10 general principles for interaction design

### Tips

- Provide accelerators like keyboard shortcuts and touch gestures.
- Provide personalization by tailoring content and functionality for individual users.
- Allow for customization, so users can make selections about how they want the product to work.

# #8 Aesthetic and minimalist design

## Jakob Nielsen's 10 general principles for interaction design

Interfaces should not contain information which is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility.



# #8 Aesthetic and minimalist design

## Jakob Nielsen's 10 general principles for interaction design

### Tips

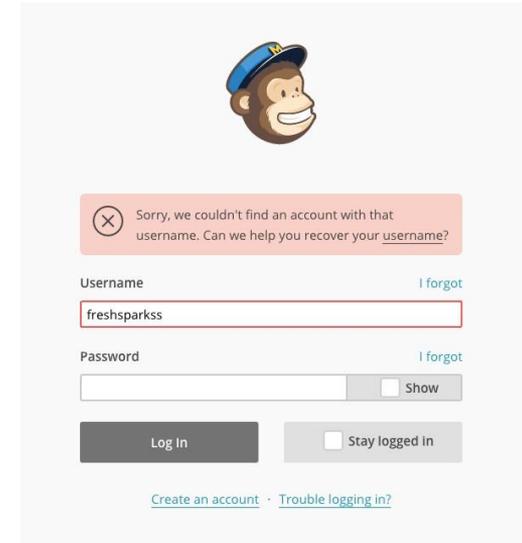
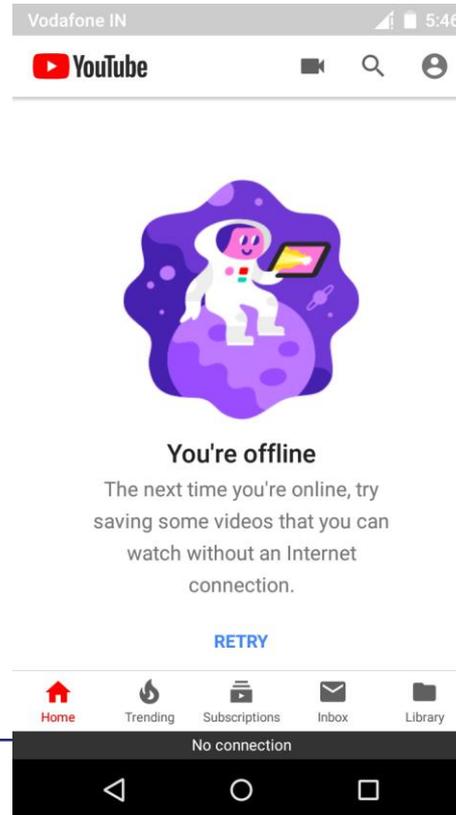
- Keep the content and visual design of UI focus on the essentials.
- Don't let unnecessary elements distract users from the information they really need.
- Prioritize the content and features to support primary goals.

# #9 Help users recognize, diagnose, and recover from errors

## Jakob Nielsen's 10 general principles for interaction design

Error messages should be expressed in plain language (no error codes), precisely indicate the problem, and constructively suggest a solution.

These error messages should also be presented with visual treatments that will help users notice and recognize them.



# #9 Help users recognize, diagnose, and recover from errors

## Jakob Nielsen's 10 general principles for interaction design

### Tips

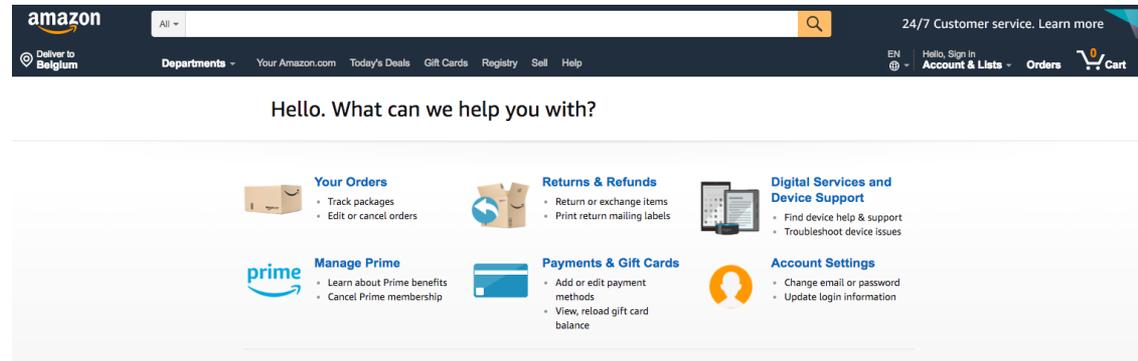
- Use traditional error message visuals, like bold, red text.
- Tell users what went wrong in language they will understand — avoid technical jargon.
- Offer users a solution, like a shortcut that can solve the error immediately.

# #10 Help and documentation

## Jakob Nielsen's 10 general principles for interaction design

It's best if the system doesn't need any additional explanation. However, it may be necessary to provide documentation to help users understand how to complete their tasks.

Help and documentation content should be easy to search and focused on the user's task. Keep it concise, and list concrete steps that need to be carried out.



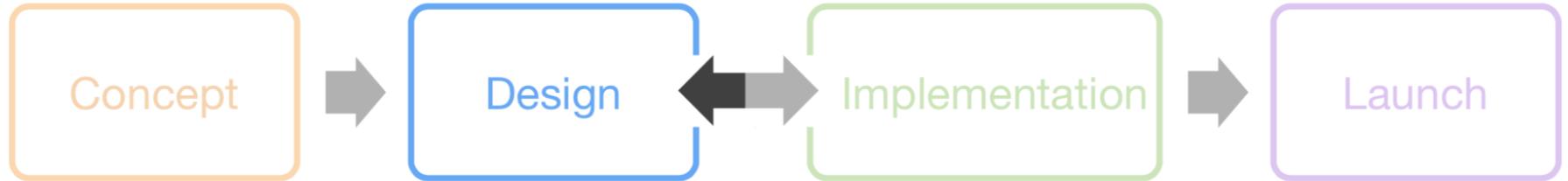
# #10 Help and documentation

## Jakob Nielsen's 10 general principles for interaction design

### Tips

- Ensure that the help documentation is easy to search.
- Whenever possible, present the documentation in context right at the moment that the user requires it.
- List concrete steps to be carried out.

## B. UX in the product lifecycle



- 2.1 Information architecture & navigation
- 2.2 General principles
- 2.3 UI tips & tricks**
- 2.4 Psychology of design
- 2.5 Interaction design
- 2.6 Usability testing

# 6 UI tips & tricks

1. Size
2. Colour
3. Contrast
4. Alignment
5. Repetition
6. Whitespace

These also count for slides 😊

## You will read this

before you read this

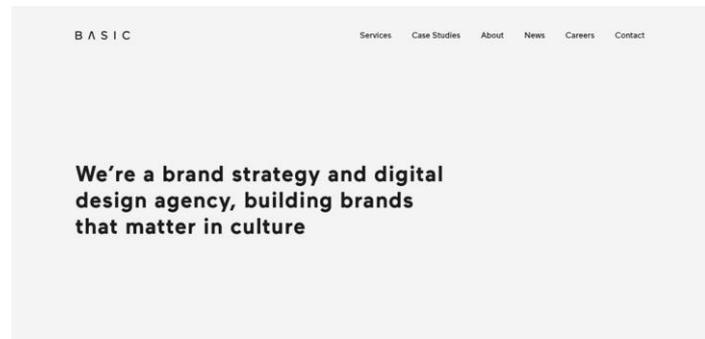
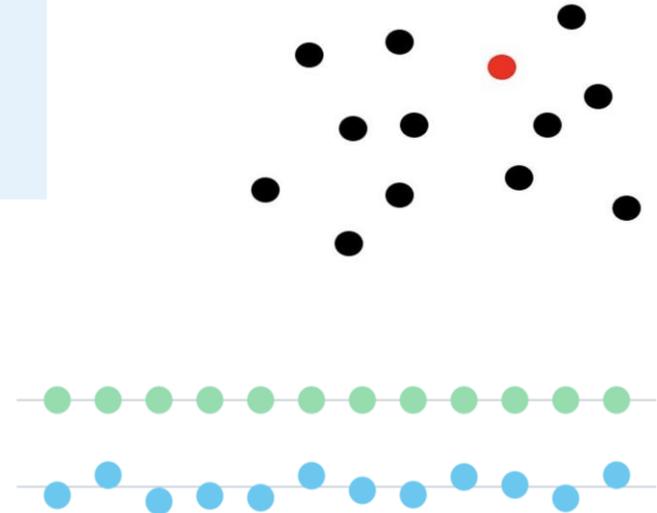
<https://contrast-ratio.com/>



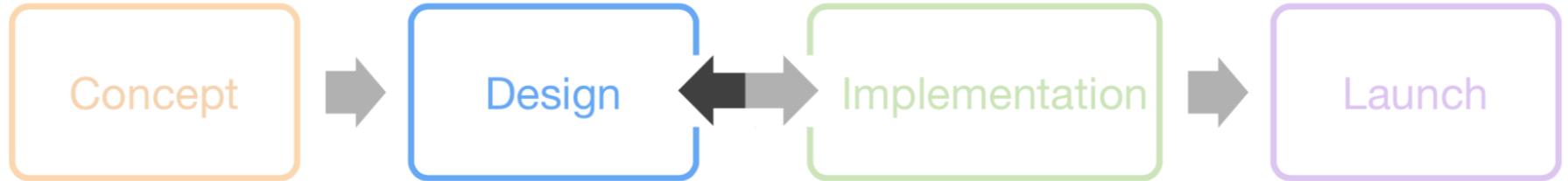
15 Golden Principles of Visual Hierarchy (& Why You Need it ...  
<https://www.impactbnd.com/blog/15-golden-principles-of-visual-hierarchy-infographic> ▾  
How to increase website conversions using visual hierarchy and 15 golden rules to implement! ...  
Repetition. Repetition is great to represent relative importance.

4 Ways to Use Visual Hierarchy to Improve UX and Boost Conversions  
<https://conversionxl.com> ▸ All Things Data-Driven Marketing ▾  
Jun 20, 2017 - First of all, what exactly is visual hierarchy in terms of web design? .... In terms of visual hierarchy, repetition is a great way to help exhibit ...

What is Visual Hierarchy? | Interaction Design Foundation  
<https://www.interaction-design.org/literature/topics/visual-hierarchy> ▾



## B. UX in the product lifecycle



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# Cognitive biases & Principles that affect UX

## Psychology of design

- Hick's law
- Confirmation bias
- Cognitive load
- Anchoring
- Progressive disclosure
- Fitts' law
- Mental modal
- Aesthetic Usability Effect

# Hick's law

## Psychology of design

### More options leads to harder decisions

Hick's Law predicts that the time and the effort it takes to make a decision, increases with the number of options.

The more choices, the more time users take to make their decisions.

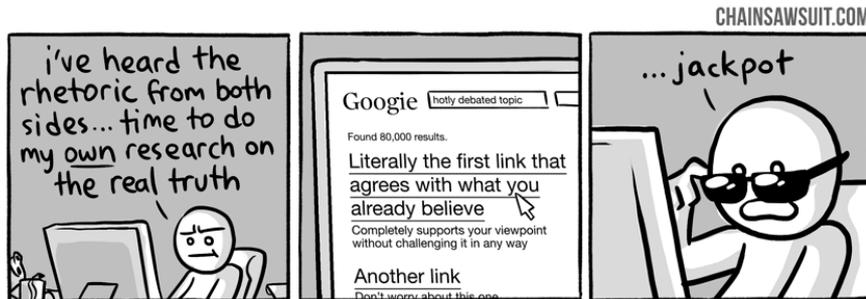
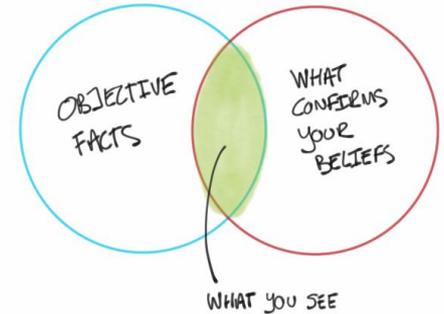
→ Avoid overwhelming users by highlighting recommended options

# Confirmation bias

## Psychology of design

People look for evidence that confirms what they think

People tend to search for, interpret, prefer, and recall information in a way that reinforces their personal beliefs or hypotheses.



# Cognitive load

## Psychology of design

Total amount of mental effort that is required to complete a task

Cognitive load is the total amount of mental effort that is required to complete a task. You can think of it as the processing power needed by the user to interact with a product.

If the information that needs to be processed exceeds the user's ability to handle it, the cognitive load is too high.

→ Minimize Cognitive Load to Maximize Usability

→ Avoid visual clutter

# Anchoring bias

## Psychology of design

Users rely heavily on the first piece of information they see

The initial information that users get affects subsequent judgments.

Anchoring often works even when the nature of the anchor doesn't have any relation with the decision at hand. It's useful to increase perceived value.

→ Pricing table shows the most expensive subscription plan first (the anchor) so that the other plans look inexpensive in comparison

# Progressive disclosure

## Psychology of design

Users are less overwhelmed if they're exposed to complex features later

An interface is easier to use when complex features are gradually revealed later. During the onboarding, show only the core features of your product, and as users get familiar, unveil new options. It keeps the interface simple for new users and progressively brings power to advanced users.

The screenshot shows a payment selection interface with three steps: 01 CUSTOMER INFO, 02 SHIPPING INFO, and 03 PAYMENT SELECTION. The 'Credit Card' option is selected, showing a description, card number field, and name/expiration/ CVV fields. The 'PayPal' option is also visible below.

01 CUSTOMER INFO    02 SHIPPING INFO    03 PAYMENT SELECTION

**Credit Card** 

Safe money transfer using your bank account. Visa, Maestro, Discover, American Express.

CARD NUMBER

0000 0000 0000 0000 

NAME ON CARD    EXPIRY DATE    CVV CODE

   MM / YY     

**PayPal** 

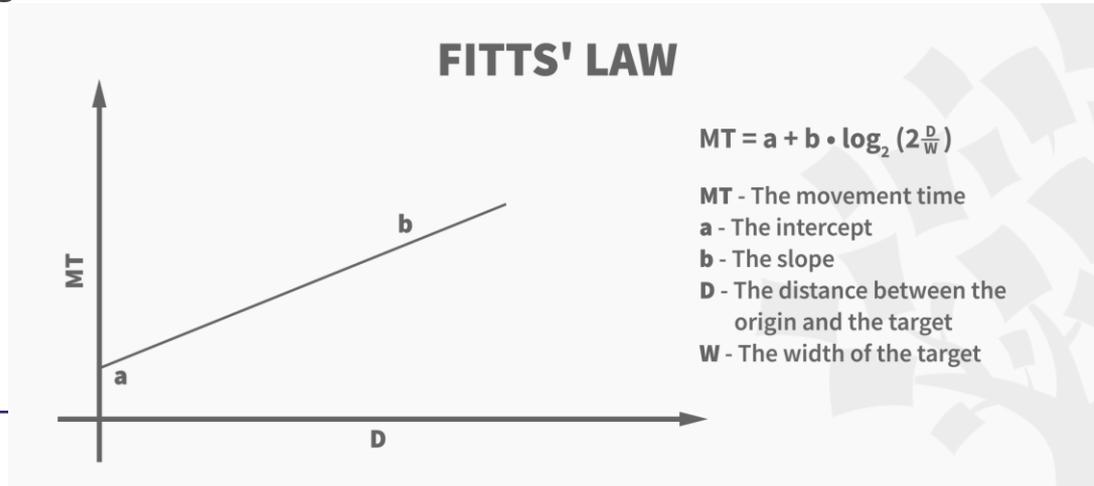
You will be redirected to PayPal website to complete your payment.

# Fitts' law

## Psychology of design

The time to acquire a target is a function of the distance to and size of the target

→ It's easier to aim the bigger the target is



# Mental modal

## Psychology of design

Users have a preconceived opinion of how things work

A mental model is an explanation of someone's thought process about how something works in the real world. It is a representation of the surrounding world, which might be accurate or not.

What users believe they know about your product changes how they use it.

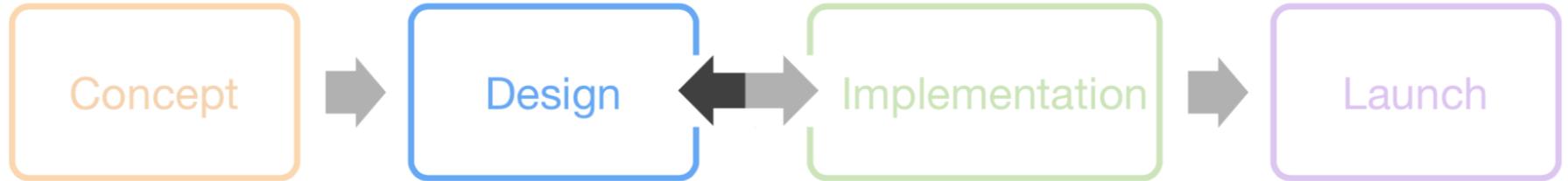
# Aesthetic Usability Effect

## Psychology of design

Users often perceive aesthetically pleasing design as design that's more usable

Aesthetically pleasing design can make users more tolerant of minor usability issues. It leads them to believe the design actually works better.

## B. UX in the product lifecycle



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# Interaction design

SKETCHES

WIREFRAMES

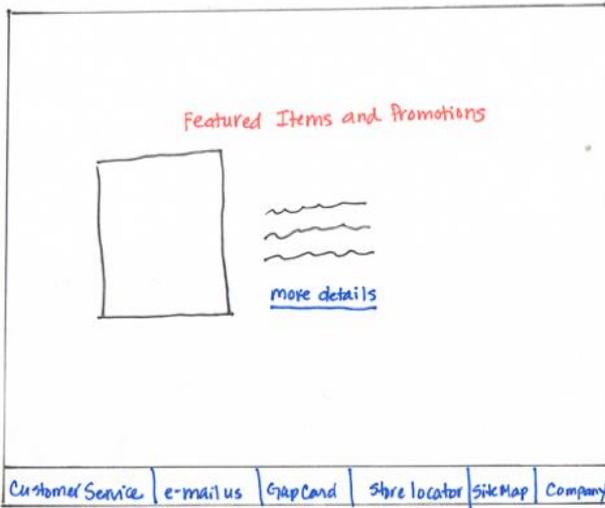
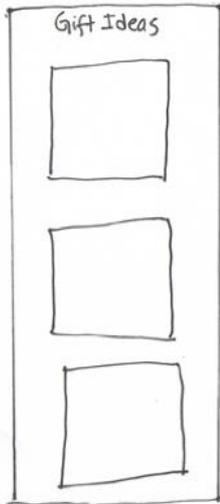
MOCK-UPS

PROTOTYPES

# Sketches

## Interaction design

GAP	Men	women	maternity	Boys	Girls	Baby boy	Baby girl	Shopping bag Items in bag:
	Gift set Newborn	Jeans Pants	Shorts Overalls	Shirts/Sweaters Outerwear	Sleepwear Accessories	Special Sale		



Hassle-free returns



# Wireframes – levels of fidelity

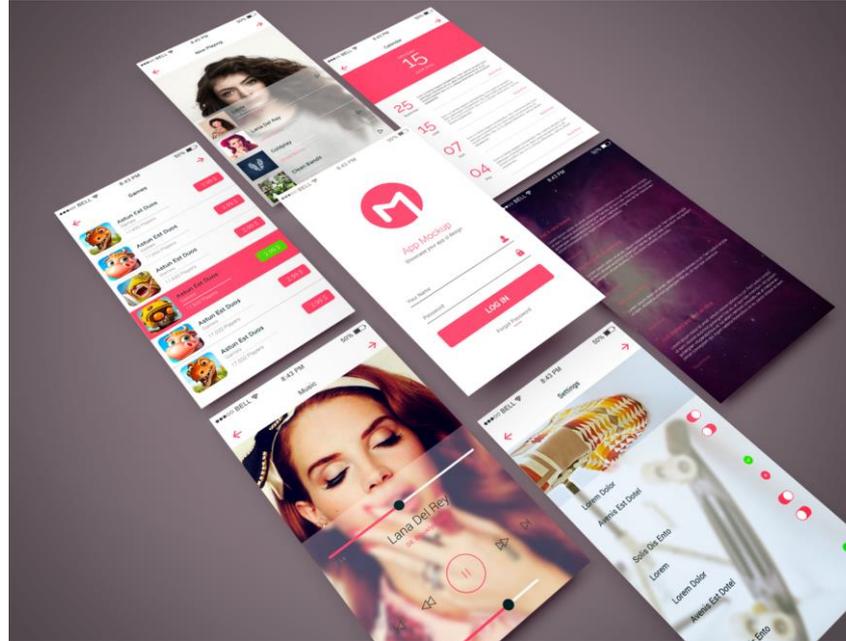
## Interaction design

The image displays four stages of a website wireframe, illustrating the progression from a low-fidelity sketch to a high-fidelity mockup.

- Low-Fidelity Sketch:** The first wireframe is a simple rectangular layout with three main sections: "Logo" on the left, "Main navigation" in the center, and a "Search" box on the right. A large "X" is drawn across the main content area, and a "News" label is positioned in the bottom-left corner.
- Medium-Fidelity Wireframe:** The second wireframe adds more detail. It includes a "Duke Health" header, a navigation menu with "Doctors", "Treatments", "Locations", and "Patients", and a "Search" box. The main content area is still marked with a large "X".
- High-Fidelity Mockup:** The third wireframe is a more refined version. It features the "Duke Health" logo, navigation menu, and search box. The main content area is divided into "News" and "Events" sections, each containing three placeholder boxes (indicated by "X" marks) and a block of Lorem Ipsum text.
- Final High-Fidelity Mockup:** The final wireframe is a complete, high-fidelity mockup. It features the "Duke Health" logo, navigation menu, and search box. The main content area is divided into "News" and "Events" sections. The "News" section includes a "See all articles >" link and three news items with images and titles. The "Events" section includes a "See all events >" link and three event items with dates and titles. A sidebar on the right contains links for "Access Duke MyChart", "Contact Us", "Giving to Duke Health", and "Find your Doctor".

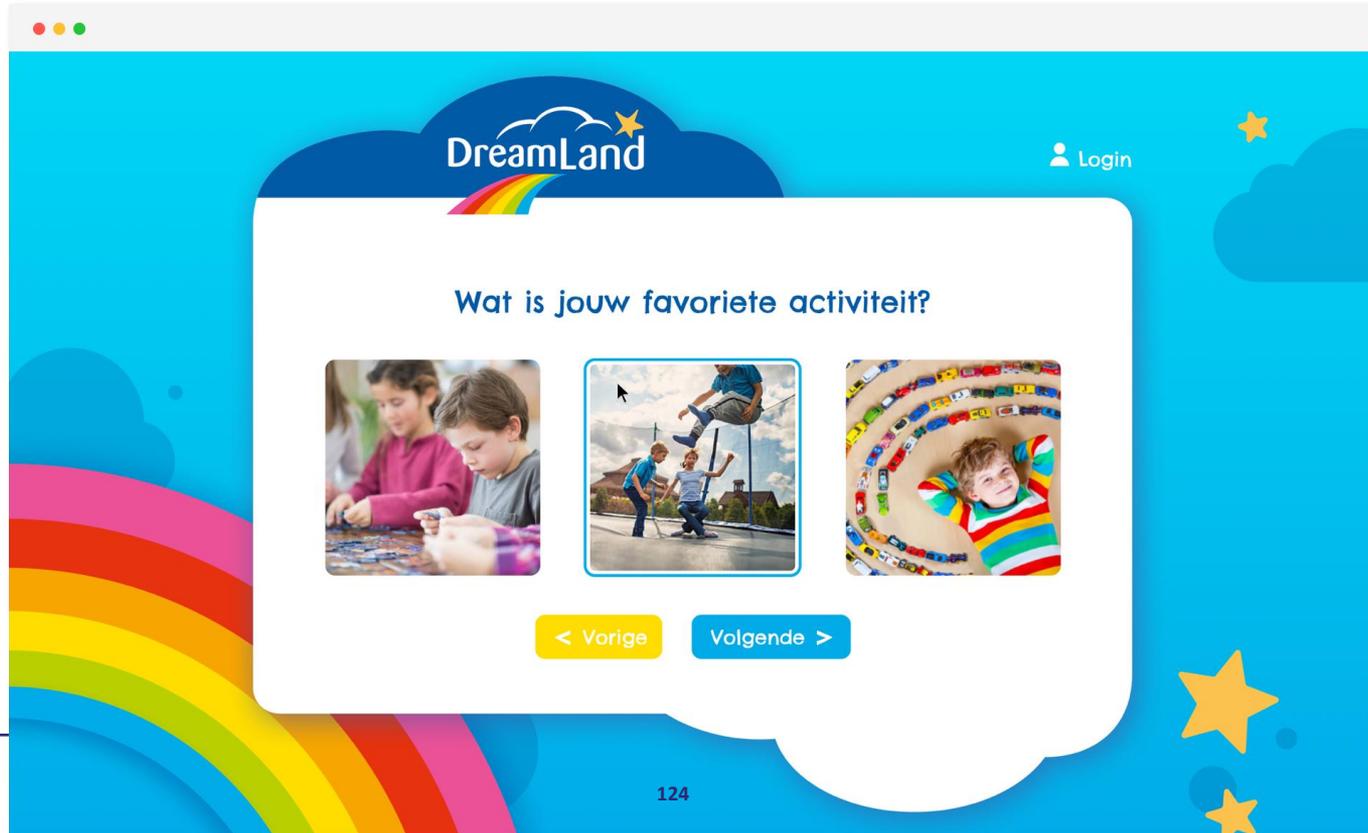
# Mock-ups

## Interaction design



# Mock-ups

## Interaction design



# Prototypes

## Interaction design

- Clickable
- Contains interactions
- Usually high-fidelity

# Tools

## Interaction design



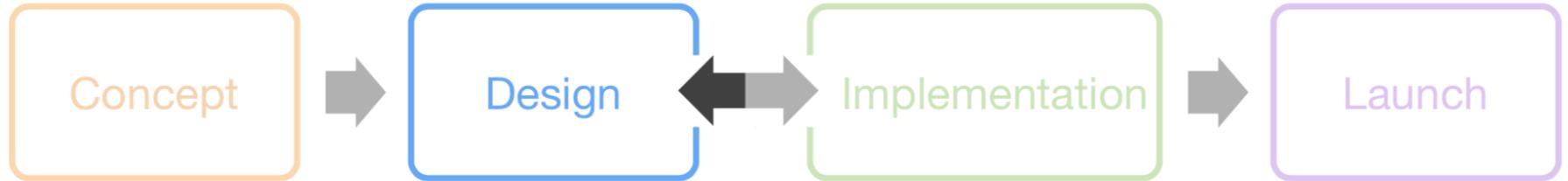
axure



*in*VISION



## B. UX in the product lifecycle



- 2.1 Information architecture & navigation
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# Iterative design & evaluation

## Usability testing

- A/B testing
- Usability testing

# A/B testing

## Usability testing

THE CORKSCREW

Free delivery on 12 bottles or orders

Phone orders (01) 674 5731

Search enter

My Account My Cart

Home Wine Sale Red wine White wine Sparkling Rosé Fine wine Fortified/Sweet Wine gifts Wedding wine

Clos du Porteau "Le Courlis" Touraine 2009

Availability: In stock

Regular Price: €44.95

SPECIAL OFFER: €9.95

Qty: 1 **ADD TO CART** Free delivery & 10% off when you buy any 12 bottles.

**Quick Overview**

A Sauvignon Blanc as it should be. Balanced, elegant while crisp and fresh. Gooseberry, zesty lemons and a lovely mineral edge. All the way through, there's an amazing vein of elegance which belies the humble price tag.

**We accept**

MasterCard VISA LASER

**Why buy online?**

- FREE nationwide delivery when you buy 12 bottles or spend €150.
- Only €10 delivery for smaller orders (or pick up free from our Dublin shop).
- 10% discount when you buy 12 or more bottles (non-sale items)
- Safe and secure online payments provided by Realex.

**Recommend to your friends?**

Like 2 Tweet 0

Version A

12.5% conversion

THE CORKSCREW

Free delivery on 12 bottles or orders

Phone orders (01) 674 5731

Search enter

My Account My Cart

Home **Wine Sale** Red wine White wine Sparkling Rosé Fine wine Fortified/Sweet Wine gifts Wedding wine

Clos du Porteau "Le Courlis" Touraine 2009

Availability: In stock

Regular Price: €44.95

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**Recommend to your friends?**

Like Tweet 0

Version B

31.0% conversion

# Usability testing

- Involves a design, a participant, and a facilitator
- One user at a time
- Think-aloud methodology
- Is mainly qualitative

*“What people say, what people do, and what they say they do are entirely different things.”*

**- Margaret Mead, pioneer anthropologist**

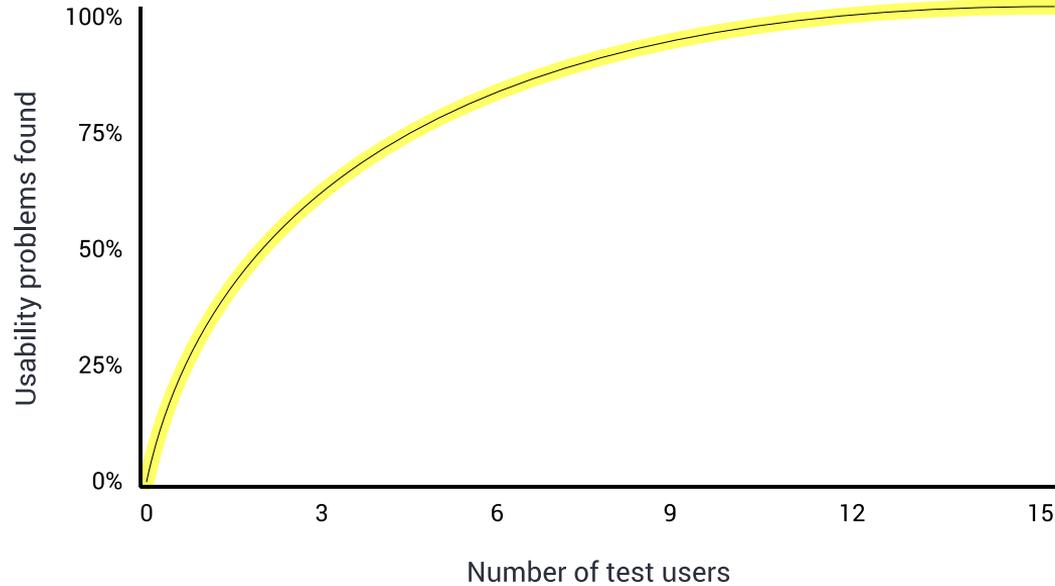
# Measure usability

## Usability testing

- Learnability  
How fast can new users understand it?
- Efficiency of Use  
How fast can users accomplish tasks?
- Memorability  
Can people use it without having to re-learn it?
- Errors  
Where and why do people encounter problems?
- Subjective Satisfaction  
How much do users like using the interface?

# Usability testing

Testing with 5 people uncovers 85% of usability problems that affect 1 in 3 users



# Success factors

## Usability testing

- Representative users
    - Same knowledge and skills as the target audience
    - If possible, same goals and motivations
  - Appropriate task instructions
    - Representing the important goals of users/ the system
    - Without telling the user exactly how to succeed
    - Without providing unnecessary details
  - Test facilitator
    - Skilled at asking non-leading questions
    - Able to help study participants feel comfortable
-

# Steps

## Usability testing

1. Determine focus of study
2. Recruit participants
3. Write tasks
4. Determine location and set-up
5. Conduct the test sessions
6. Analyse findings
7. Make recommendations
8. Communicate findings (report and/or presentation)
9. Improve design

# 3. Implementation



# Waterfall development

A traditional development method that is linear and sequential

- Requirements at the beginning (be right at the start)
- Linear sequence
- “Throw it over the wall”

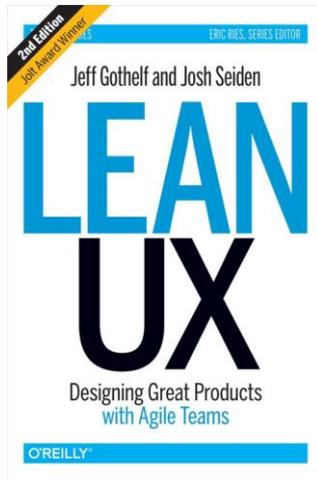
# Agile

Iterative philosophy that allows for delivering a product in smaller pieces, supplying only relevant products to market, and planning to adapt and change at any step

# Implementation

## Tips

- Try to keep design & research ahead of coding
- Conduct final usability testing in implementation phase
  - Too late to START usability testing
  - Fixing errors after development can be 100x more expensive
- Work with the development team to resolve implementation issues



A philosophy focusing on bringing the product to users faster

Less emphasis on deliverables  
(like specifications and wireframes)

Short UX cycles (1 day – 1 week)

Design + Product Management +  
Development = 1 team

# Implementation

## Integrating UX in Agile/Scrum/Lean UX

- Design stays ahead of the sprint, known as “sprint ahead”
- Some teams define “UX Sprints” separate from the development sprints
- Allow time for planning and story mapping
- Set up for very rapid testing
- Cultivate a collaborative culture
- Set explicit roles and responsibilities

# 4. Launch



# Launch

## Tips

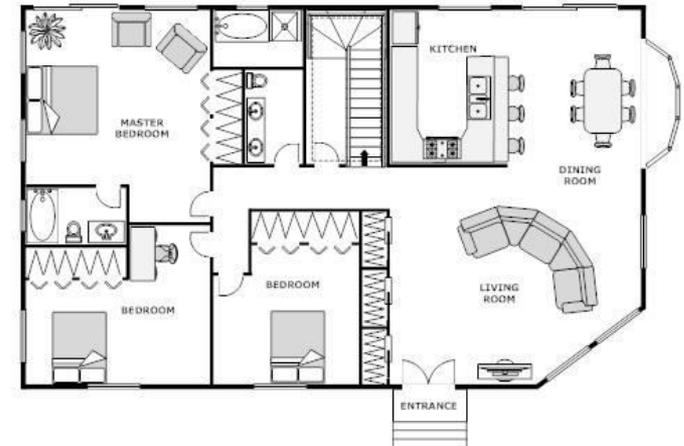
- **Measure success:** Tie it back to your company's KPIs !
- Set up and track analytics
- Conduct studies to see actual usage
- Benchmark improvement
- Compare to old design, competitors, previously defined usability goals
- Note ideas for future improvements
- Track customer support records

C.

UX teams & roles

# User-centered design is like building a house

- Owner = Business
- City = Marketing, Branding
- Architect = UX specialist & Interaction Designer
- Contractor = Developer
- Interior Designer = Visual Designer
- Furniture = Content



# Transitioning into a UX role

- Gain experience: practice: part-time, as an intern, as a consultant
- Watch users in action
- Read books, groups, blogs
- Review pattern libraries and guidelines
- Talk to fellow UX professionals at conferences or local events e.g. UX Meetup
- Determine which of your existing skills translate to UX work
- Consider a degree, cases where these help:
  - Impressive if the hiring manager knows little or nothing about UX
  - Stand out against equal job candidates

# Thank you!

Kathleen Van den Keybus

Any questions?

 0471 03 14 21  [Kathleen@uflow.be](mailto:Kathleen@uflow.be)  [Uflow.be](http://Uflow.be)



uflow

